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The London Medical Record

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A MONTHLY REVIEW OF THE

Progress of the Medical Sciences and of Subjects relating to Public Health

FOR CONTENTS SEE PAGE XIII

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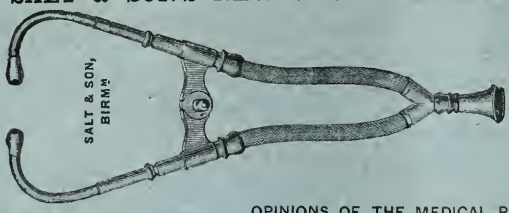

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FIG. 1.

'This instrument, of which an engraving is given (Fig. 1), is the invention of Mr. BOWKETT, of the Leeds Fever Hospital, who has bestowed much time and labour on its perfection, ably assisted by Messrs. Salt & Son, of Birmingham, in whose hands it is now placed.' *Braithwaite's Retrospect*.

A facsimile is here given (Fig. 2) of a continuous record from a case of phthisis.

FIG. 2

For detailed description of the Thermograph *vide* THE LANCET, Jan. 28, 1882.

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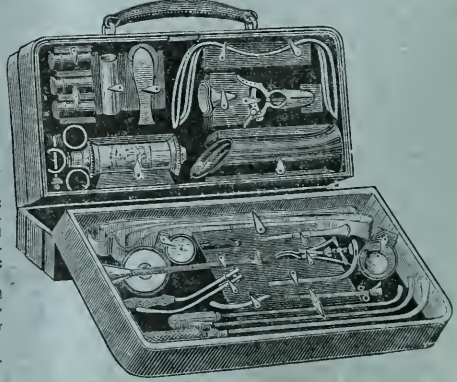

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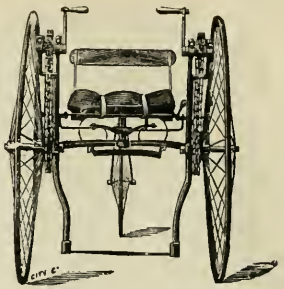

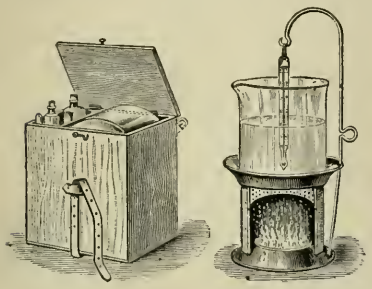

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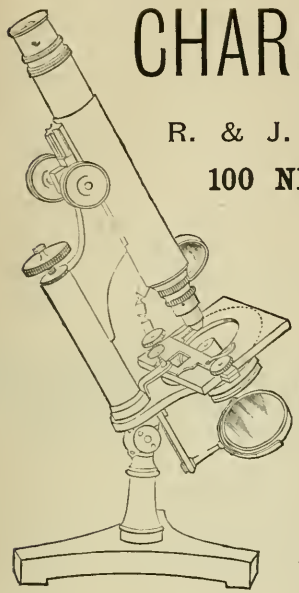

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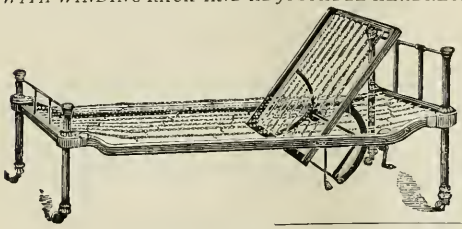

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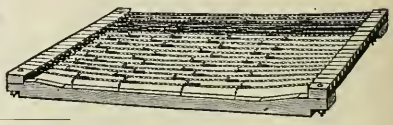

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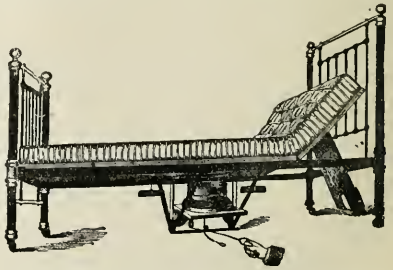

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Morphiæ Sulphas....	1-6 grain.	Morphiæ Sulphas....	1-12 grain.
Morphiæ Sulphas ..	1-8 grain.	Atropiæ Sulphas ..	1-200 grain.
Morphiæ Sulphas....	1-12 grain.	Atropiæ Sulphas ..	1-60 grain.
Morphiæ Sulphas....	1-3 grain.	Atropiæ Sulphas ..	1-100 grain.
Atropiæ Sulphas	1-120 grain.	Atropiæ Sulphas	1-150 grain.
Morphiæ Sulphas....	1-4 grain.	Strychniæ Sulphas ..	1-60 grain.
Atropiæ Sulphas	1-150 grain.	Strychniæ Sulphas ..	1-100 grain.
Morphiæ Sulphas....	1-6 grain.	Strychniæ Sulphas ..	1-150 grain.
Atropiæ Sulphas	1-180 grain.		

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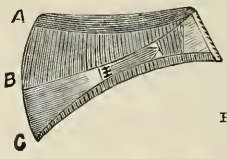

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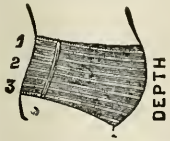

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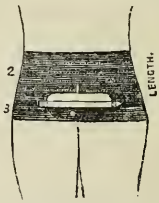

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ARTICLE 1442.

LANDOUZY ON ANGINA PECTORIS REGARDED AS A SYMPTOM, AND IN ITS RELATION TO THE ARTHRITIC NEUROSES.

M. LANDOUZY (*Le Progrès Méd.*, 1883, Nos. 35 and 36), in a recent clinical lecture, reminded his hearers that he has often told them that angina pectoris should not be regarded as a morbid entity. Like epilepsy, he says, it is not an autonomous disease, and, like it, there is no such thing as angina pectoris as an unity. No doubt there is a dramatic completeness about an attack of this affection : retrosternal pain, anxiety, painful immobility, pallor, cold sweat, painful irradiations down the cervical and brachial nerves. This completeness attracts the attention of the patient and physician, so that it has come to be regarded as always presenting the same characters and bearing the same grave prognosis. But this involves an error, not only doctrinal, but of great practical importance. Just as there are epilepsies which depend on this or that condition, more or less transient or amenable to treatment, so there are anginas which may be due to transient or curable conditions.

This form of purely nervous angina is well attested, but deserves to be better known. These patients have more to complain of than to fear; the angina is one of the numerous phases of their neurosis, which may depart after a time never to return, is never dangerous to life, and depends on a mere functional derangement of the nervous system. A young girl in the ward St. Anne is, on the other hand, the subject of angina depending upon a serious rheumatic affection of the heart; and in the same category we must place a patient, M. F., aged 67, inveterately gouty, who has well-marked disease of the aortic valves, and in whom these attacks supervene whenever he walks up a steep incline, goes upstairs, walks against the wind, or experiences a sudden change of temperature. The peculiarity of this form is that the same occasioning causes always produce the same result; and these patients have not only cause to complain, they have everything to fear. In the other type, the occasioning causes are obscure, irregular in their effects, and instead of the kind just related are usually a little fatigue, an emotion, or some slight digestive trouble. No doubt, there is some pathological element which determines the occurrence within one minute of an attack which was absent a minute before. But this is often hard to define, as such attacks may come on when the patient is in perfect repose, sometimes in bed, and often during the first sleep. This peculiarity of attack, coming on during repose, or in bed, has been very noticeable in one of my cases, which presents many features in common with the facts recorded by Dr. Marie (*Revue de Méd*, 1882, p. p. 339. This patient, an advocate, aged 33, sent for me three times at intervals of a few days, for attacks of angina, which came on in bed after he had dined quietly at home. I was sent for under similar circumstances to see Miss X., aged thirteen, who threw her family into alarm at eleven o'clock at night. Finally, Madame G. had her first attack when quietly sleeping by the fire after dinner over a newspaper. It was in bed also that the attacks of angina used to occur in the patient with tabes, observed last March in M. Féréol's wards. But, while the attack appears at first sight to attack patients in the midst of perfect health, it is a mistake to suppose that it is an isolated symptom. Thus M. R.'s attacks were preceded by very prolonged œsophageal spasms, during which he complained of painful constriction of the throat; in the tabetic patient, the attacks were preceded by gastric crises ; in Mdme. G's case, various nervous phenomena, nervous cough, tingling of the fingers, patches of anæsthesia and hyperæsthesia, dead fingers, frequent and copious micturition preluded the angina. It may sometimes happen that a patient with some slight cardiac lesion, who is also nervous, may have angina, which should be ascribed rather to the neurotic temperament than to the cardiac lesion. Thus Mdme. K. had a slight aortic obstruction ; but after the menopause she became decidedly nervous, with sudden attacks of flatulence, outbursts of laughter and tears, œsophageal spasm, neuralgia, transitory paraplegia, palpitations, asthma, loss of memory, difficulty of articulation, slight convulsive seizures, &c. Upon these supervened an attack of angina, which, in virtue of her cardiac lesion, was alarming. The aortic lesion under treatment appeared to improve ; but the neurasthenia increased, diabetes supervened, and then new attacks of angina appeared, and these were regarded as rather the results of the neuropathy than of the cardiac condition ; and she was told that they were no more dangerous than the asthma, palpitation, neuralgia, &c., which had so long troubled her. ROBERT SAUNDBY, M.D.

ARTICLE 1443.

PETRONE ON EXPERIMENTAL PHARMACOLOGY.

DR. L. M. PETRONE publishes some contributions to experimental pharmacology in the *Annali Universali di Medicina* for June 1883.

Action of the Salts of Sodium, Potassium, and Ammonium on the Unstriped Muscular Tissue of the Intestine.—The author's method of experiment is this. The animal (dog or rabbit) is narcotised by a hypodermic injection of ether (one to three grammes) ; the abdomen is opened and the intestines exposed. It is then plunged into a bath at 38° C. (100°·4 Fahr.) of sea-salt and water, of specific gravity 1,007. The intestines and the living tissues generally, find in this solution a neutral medium in which vitality is retained for a long time. The salts, in crystal or powder, are applied directly to the point of intestine to be experimented on. When a potassium salt is thus applied to any point of the large or small bowel, an annular constriction of the part ensues, easily propagated upwards or downwards, and lasting from two to seven minutes in the small intestine and from eight to twelve in the large. If the experiment be repeated with a salt of sodium, the gut contracts as before, but the contraction extends upwards, never downwards, for some distance ; the contraction is so great that the gut, for 6 to 10 centimètres (about 2·4 to 3 inches), re-

sembles a slender cord. This tetanic state lasts from eight to ten seconds, sometimes longer; the peristaltic movement commences from above downwards; a fresh contraction generally follows, to again give place to peristaltic movements. This may happen several times. The sodium salt must be in contact with the intestine for at least two to five seconds; the contraction follows after an interval of five to twelve seconds. With potassium salts, these intervals are shorter. The action of the sodium salts is on the mesenteric ganglionic plexus.

Action of Morphia on the Intestine.—Nothnagel has shown that the action of morphia is not on the terminations of the splanchnic nerves, but on their central origin. Its action (resembling that of digitalis on the heart) in small doses is to stimulate the suspensory or moderator nerves (splanchnic); in large doses it paralyses them. The author's experiments confirm this. If a small dose of morphia be given, the application of the soda salt causes only annular contraction like a potassium salt, and this not from paralysis of the nervous plexus of the intestine, but from stimulus to the suspensor or moderator nerves. If the dose of morphia be large enough to paralyse these nerves, the ascending contraction, suspended by the small dose, reappears with increased energy.

Action of Alum, Chloride of Calcium, Sulphates of Magnesia, Copper, and Silver, Acetate of Lead, Cotoin, Sugar, and Urea on the Unstriped Muscular Fibre of the Intestine.—Experimenting in the same way, the author found that alum causes a limited, slow, but always perceptible contraction, lasting for two or three minutes, reducing the capacity of the bowel by two-fifths of its circumference. No ascending or descending current was ever seen. Sulphate and chloride of magnesium caused very slight or no contraction. Chloride of calcium gave rise to a small contraction. Sulphate of copper and of silver caused a marked contraction, lasting for five minutes. Acetate of lead also. No contraction was caused by cotoin, urea, or sugar.

Cotoin.—The active principle of coto bark, which is derived from the *Paliciurea densiflora*, or some plant belonging to the lauraceæ or terebinthaceæ, when administered to the healthy man gives rise to no symptoms, and does not confine the bowels or interfere with digestion. The urine collected for twenty-four hours after a large dose (35 centigrammes) and evaporated in a water-bath, treated with ether and allowed to evaporate spontaneously, deposits whitish and brown crystals, which, when treated with a solution of soda, give a yellow colour exactly that of cotoin. The alkaline solution, treated with nitric acid, gives at once a characteristic blood red; with sulphuric acid, a yellowish brown. The author's researches show that cotoin does not prevent the development of putrefaction and the multiplication of bacteria, but it distinctly retards the processes of organic decomposition. Therapeutically, it is very useful in diarrhœa. It is best given as a powder in large doses (25 to 35 centigrammes) twice a day.

Action of Quinine on Sensation.—From numerous experiments on animals and man, Dr. Petrone concludes that quinine has an anæsthetic power over the centres and the peripheral sensory nerve-fibres. The anæsthetic action is only obtained when large doses are used, hypodermically or directly injected into the blood-current. The different cutaneous sensibilities (tactile, thermic, electric, of pain, &c.) are abolished one after the other in no fixed order. Elevated temperature in animals rendered the anæsthetic action more marked. Of the experiments on man we quote the following. In a healthy man, aged 20, half a gramme of bisulphate of quinine was injected. Tactile sensibility, after forty minutes, was found to be diminished in the face and in the lower limbs. After one hour, the anæsthesia became profound; after two hours it began to disappear. In another man, aged 36, half a gramme of bisulphate of quinine was injected. Thirty minutes afterwards tactile sensation on the face, hands, and arms was much weakened; fifty minutes after the injection, the anæsthesia was profound, and began to disappear after two hours. In a man with neuralgia of the third intercostal space there was marked hyperæsthesia; tactile, dolorific, thermic, and of place. Half a gramme of bisulphate was injected in three places. Ten minutes later, cutaneous sensibility was weakened; twenty minutes after injection, there was complete anæsthesia of the skin of the affected part, which was maintained for several hours. In a patient with supra-orbital neuralgia, the injection of half a gramme of quinine in two places was followed by profound anæsthesia in twenty-five minutes. Another patient had neuralgia of the sixth and seventh left intercostal space: the skin was markedly hyperæsthetic. Twenty-five minutes after the injection, complete anæsthesia of thermic and tactile sensation followed.

G. D'Arcy Adams, M.D.

Article 1444.

UNRUH ON MYOCARDITIS IN DIPHTHERIA.

The author (*Jahrbuch für Kinderheilkunde*, Band xx., Heft 1) has met with myocarditis in eight out of 237 cases of diphtheria, and also in one case of scarlatina. Of these nine, six were boys. Two of the children were 6 years old, two 11 years old, and the remaining five were aged 7, 8, 9, 10, and 12. There was nothing in the history of any of the cases to account for an affection of the heart. The diphtheria was always of a severe kind, and involved the uvula and pillars as well as the tonsils; the false membranes were fetid and of a dirty greenish colour, and left deep ulcers after their removal. The heart-affection began to make its appearance as soon as the diphtheria had ceased to spread. This was from the seventh to the fourteenth day, except in one case, where it was delayed until the twentieth day. The first symptom of the heart being involved was furnished by the pulse, which suddenly became small and empty. Its frequency was at first unaltered, but, after twenty-four or thirty-six hours, was greatly increased (160–180); at the same time, the pulse became irregular. Both these qualities were greatly aggravated by changes of position. The heart's impulse was, in this stage, perceptibly and palpably weaker, and a little to the right of its normal situation. The heart's dulness extended in all the cases beyond the midsternal line, and in two (one being the fatal case) it reached a finger's breadth beyond the right sternal margin. With convalescence, it returned to nearly its normal dimensions. On auscultation, the first sound of the heart was diminished in intensity; and, when the complaint was at its height, a blowing sound, like a chlorotic murmur, was heard. In only one case was

there any præcordial pain. No information was derived from the thermometer. No purpura or other hæmorrhage was observed in any case; and, somewhat remarkably, dyspnœa was absent in all. The patients were drowsy and apathetic, indeed too much so to ask for nourishment. Albuminuria was present in all. The albumen first appeared when the diphtheria was at its height; then it subsided, but reappeared in greatly increased quantity soon after the heart-affection showed itself. At the same time the urine diminished in quantity, and œdema, with in one case ascites, set in. The first symptom of amendment was the lessening of the albumen.

Of the nine children only one, a boy aged 11, died. The heart in this case, examined *post mortem*, exhibited a number of rather dark-coloured deposits of various sizes, some imbedded in normal muscular tissue, others in tissue which showed fatty infiltration or degeneration. The fasciculi were separated by spaces occupied by numerous cells. The striping was faint or imperceptible. All of these changes were more marked on the right side. There was no extensive fatty degeneration of the heart.

The first few cases were treated with digitalis or ergot, but neither drug had much effect. Camphor was then tried, and with marked benefit. It was given in combination with perchloride of iron. Stimulants were freely administered. The author anticipates the objection that the cases which recovered might have been simple neuroses of the heart, and founds his strongest argument against it upon the widening of the præcordial dulness. But this was marked in two cases only.

[The author would have done better to have given separate notes of the fatal case. But the weakest part of the paper is that which relates to the necropsy. We are not informed upon the following points. 1. Was the heart dilated or enlarged? 2. Of what nature were the 'numerous cells'? 3. Did these cells represent the structure of the dark deposits? 4. Were the spots found in any other organ? In the absence of information upon these points, the diagnosis of even the fatal case cannot be unhesitatingly concurred in.—*Rep.*]

Ralph W. Leftwich, M.D.

Article 1445.

PILCHER ON LATERAL CLOSURE OF WOUNDS OF VEINS.

Dr. Lewis S. Pilcher, of Brooklyn, in a paper on 'The Lateral Closure of Incomplete Vein-Wounds' (*Annals of Anatomy and Surgery*, August 1883), first alludes to the results of some experiments made during the year 1882 on deligation of veins with aseptic catgut and under other antiseptic conditions. In none of these experiments did a thrombus form on either side of the ligature, which was applied in the continuity of the vein, except in one case, in which special effort was made to secure one by applying a second ligature to the vein swollen with blood, a little more than an inch above the first. The series of specimens obtained in these experiments, when examined, demonstrated that marked proliferation of the cells of the tunica had been excited, the activity of this proliferation having been greatest at the seat of constriction. The accumulation and confluence of the masses of cells in the *cul-de-sac* formed by the constriction of the vein, the subsequent extension into them of the capillaries, and the consequent conversion of the new tissue into connective tissue, were the successive steps by which permanent closure of the tied veins was effected. A wound in the wall of a vein determines on the borders of such wound the same circulatory and nutritive changes as follow similar injuries to other organs.

The practical difficulties which may complicate the course of the wound in the vein and render abortive the natural attempts at repair, spring from the special function and anatomical character of the organ. In the first place, the pressure of the blood constantly tends to separate the edges of the wound; and, in the second place, the thin walls of a vein do not present sufficient surface for securing perfect and reliable apposition of the edges of the wound. In the case of large venous trunks, even if such apposition were possible, the delicate cicatrix would not be able to sustain the pressure of the blood-column filling the interior of the vessel. To assist him in overcoming these obstacles, the surgeon finds an excessive exudative activity in the adjoining lining membrane, excited by the injury, which may be taken advantage of to secure the required extent of surface. When, therefore, it is sought to bring about by ligature the certain accomplishment of the conditions by which a vein-wound shall be closed, the apposition of the cut edges is disregarded, and the apposition of the adjoining intima sought for. It is important to remember, Dr. Pilcher points out, that the proper relation of a ligature to the healing process that closes an aperture in a blood-vessel, is simply that of maintaining apposition. Such ligature should be unirritating, should not interfere with union by first intention, either of the wound in the vessel or of the wound in general, and should be capable either of remaining passive in the tissues in which it is imbedded, or, preferably, of becoming spontaneously absorbed after its function has been accomplished. These considerations, Dr. Pilcher states, have an important practical application in determining the propriety of substituting a lateral ligature, or a lateral suture, for ligatures encircling the entire vessel, in the treatment of wounds involving but a part of the wall of a great vein.

Dr. Pilcher discusses in the next place the extent to which a ligature or suture not encircling the whole tube can be relied upon to satisfy the different indications for treatment in the case of wounds of large veins. The primary escape of blood may be arrested, when an incomplete wound of a large vein has been sustained, by grasping the edges of the wound by forceps, and throwing a thread around the adjoining parts, as the opening of a bag is encircled and closed by a string. This constitutes *lateral ligature*. The edges of the wound may be permitted to remain in the grasp of the forceps, which, as a clamp, may retain them in apposition till primary adhesion of the apposed tunics has taken place with sufficient firmness to prevent further escape of blood. This constitutes lateral force-pressure. If the wound be a longitudinal slit, too extensive to be grasped by a single ligature, or if the wall of the vein be not sufficiently lax to permit its being puckered up enough to be securely grasped by the ligature, further hæmorrhage may be prevented by sewing up the wound by a continuous suture. Lateral closure of a wound in a vein will, according to Dr. Pilcher, effectually arrest primary hæmorrhage. If this closure be effected by an unirritating material and with adequate anti-

septic treatment of the general wound, it will not expose the patient to the dangers of secondary hæmorrhage; but if it be practised with an irritating thread and without adequate antiseptic precautions, it is more likely to be complicated by secondary hæmorrhage than the ordinary encircling ligature. In 1882 Braun compiled and published twenty-nine cases of lateral closure of veins, twenty-four by ligature, three by force-pressure, and two by suture (*Archiv für Klin. Chirurg.*, Band xxviii., 1882). Successful results were obtained in sixteen cases of ligature, one of force-pressure, and one of suture. There were nine deaths—two by pyæmia after force-pressure, seven after ligature, four of which were from hæmorrhage and three from pyæmia. The two cases of lateral suture reported by Braun were: one case in which Czerny performed this operation on the internal jugular vein, but was compelled by the recurrence of hæmorrhage to resort to acupressure, and one case, more fortunate in its course, in which the femoral vein was thus closed by Schede. To the cases collected by Braun, nine other cases of lateral closure of venous veins may be added from American surgical literature—one of the femoral and eight of the internal jugular—all of which terminated in recovery. Sufficient experience of the lateral closure of wounds in veins has thus been now gathered to afford some grounds upon which to estimate its value, and to indicate its limitations, its possible dangers, and the precautions which should attend its use.

The advantages which attend the method of lateral closure of vein-wounds are these: it may be more quickly done; it demands less extensive dissection and disturbance of the neighbouring tissues; it increases the prospect of obtaining union throughout the wound by first intention; and, finally, it preserves intact the function of the vessel. Lateral closure has been condemned by most surgical writers in the past, on account of the danger of secondary hæmorrhage to which its use was presumed to expose the patient; but Dr. Pilcher asserts that the objection upon the score of probable secondary hæmorrhage, is an objection to a particular kind of ligature-material and of treatment of the general wound, and not to lateral closure. A thread that must 'cut through' and become detached, is a source of danger, greater in the case of its application to the side than to the circumference of a vein; and whether such a thread should ever be applied laterally, must depend on whether the importance of maintaining intact the function of the vessel as a blood-conduit is great enough to justify the taking of some risk to secure it. From this point of view, a marked difference exists between the internal jugular vein, and the trunk-veins at the roots of the extremities. The risks of the use of a septic ligature, applied laterally, are greater in the case of the internal jugular than in the case of the axillary or femoral veins; whilst the free collateral circulation through the intracranial venous sinuses, the superficial veins of the head and neck, and the sinuses of the spinal canal, prevent serious discomfort from being experienced from the obliteration of the first-named vessel, notwithstanding its size. The axillary and femoral vessels, on the other hand, cannot be obliterated without serious disturbance of the circulation of the corresponding limbs. In the case, therefore, of these latter veins, the importance of preserving them from obliteration, and the more favourable conditions which they present to diminish the risks of disturbance to the healing of wounds in their walls, while the current of blood is active within them, justify the assumption of the risks of their lateral closure, even without the advantage of aseptic thread or attendant antiseptic treatment. The introduction of the antiseptic method of treating wounds, and the use of aseptic ligature-materials, render necessary a reconsideration of our old teaching as to the propriety of the lateral closure of incomplete wounds of veins. By primary union or union by granulation without septic disturbance, laterally closed vein-wounds are secured against those disturbances which have endangered their course in the past, and the liability to which has determined the condemnation of the lateral method of treatment.

In conclusion, Dr. Pilcher submits the following rules of practice for the guidance of surgeons.

1. 'In every case of incomplete wound of a vein, attempt should be made to secure the lateral closure, and the preservation of its functional integrity, provided an unirritating ligature or suture material can be obtained, and the wound can afterwards be kept from septic infection. 2. In cases of incomplete wound of a trunk-vein, at the root of an extremity, the lateral closure of the wound should be attempted, even though an ordinary thread be necessarily used, and perfect antiseptic measures be impracticable. 3. In cases of incomplete wound of an internal jugular vein, when ordinary thread must be used for its treatment, and perfect antiseptic cares are impracticable, the vein should be ligatured in its circumference above and below the wound, and the division of the vessel made complete.'

W. Johnson Smith.

Article 1446.

MURATOFF ON THE TREATMENT OF NEGLECTED ABORTION.

In the *Mejdunarodnaia Klinika*, May 1883, pp. 296–309, Dr. A. A. Muratoff, of Moscow, discusses the management of those cases of abortion in which some portions of the ovum are retained within the womb, and undergo there decomposition, threatening septicæmia. Of course, there may be no question of what to do in such cases. The obstetrician must remove the remnants of the ovum as quickly as possible, and disinfect the uterus. But how is this to be done? How is the uterine cavity to be reached, with its dangerous contents, through the os, which is usually found closed? Of all the means proposed and used for dilating the cervix in similar cases, sponge-tents are regarded by the author as the most harmful, for, 1. they act too slowly when every minute is precious; 2. any discharge absorbed by them rapidly undergoes putrefaction; and, 3. they cause irritation of the cervical walls. Laminaria digitata, also, acts very slowly; besides, it easily falls out from the cervix. Tupelo-root dilates the os much more rapidly than sponge or laminaria. Thus, according to Dr. A. Solovioff, while a tupelo-tent reaches its maximal swelling in four hours, a laminaria-tent, of an equal size, does so only in fifteen to twenty hours (see his article in the *Mediz. Obozr.*, May 1880); but it is very difficult to find tupelo-roots of larger size.

Basing his arguments on five years' experience, Dr. Muratoff emphatically recommends dilatation of the uterine cervix by means of a metallic dilator.

As the best instrument of this kind, he regards Sims's three-valved dilator. Dr. Muratoff's practice is as follows. After washing out the vagina with 2 or 3 per cent. of carbolic solution, he freely anoints the instrument with 4 per cent. of carbolised vaseline; he introduces its valved end into the cervix, and begins to turn the screw which serves for opening the valves. The first three or five full turns are made without any pause; but from the moment when the patient has felt a sharp pain, he proceeds with dilatation very slowly, making only half a turn at a time in every ten minutes. As a rule the valves are open to their utmost extent in three or four hours. The dilator is left in this condition for a quarter of an hour, and then closed and withdrawn. During the process of dilatation, the author makes repeated intra-uterine injections of a warm carbolic solution, through a double-current catheter. After the withdrawal of the instrument, bimanual expression of the uterine contents is tried. If one attempt be not sufficient, the remnants of the ovum are without any further delay removed by one or two fingers introduced into the womb.

The writer eulogises the results given by this method of gradual (but still relatively rapid) dilatation in *all* cases of neglected abortion. The presence of any inflammatory processes in the parenchyma of the uterus or in the vicinity of the organ does not contra-indicate the use of metallic dilators; on the contrary, it vitally indicates instrumental dilatation. The latter inflicts no violence on the cervical tissues, and, accordingly, never gives rise to any considerable reaction. In a few cases, indeed, Dr. Muratoff saw a slight temporary rise of temperature and some increase of pain about the sexual apparatus after the operation. But in a great majority of his cases the dilatation, with subsequent emptying of the womb, was immediately followed by a marked improvement both of the local and of the general conditions: the patient's temperature steadily and quickly fell to the normal level, rigors and pain disappeared, the uterine discharge rapidly lost its offensive odour, and the uterus underwent uninterrupted involution.

V. IDELSON, M.D.

ARTICLE 1447.

RIEDEL ON THE TREATMENT OF FÆCAL FISTULA OF INFLAMMATORY ORIGIN.

DR. B. RIEDEL has lately recorded (*Centralbl. für Chir.*, No. 14, 1883) two cases of fæcal fistula of inflammatory origin treated with success by operation. Fæcal fistula of such origin, being of much less frequent occurrence than fistula resulting from strangulated hernia, has not, Dr. Riedel points out, engaged the attention of surgeons so much as the latter variety. The subject of the first of these cases was a young man, aged 17, who six years before he came under the author's notice had a sudden attack of suppuration in the right iliac fossa. After free discharge through an incision of much ill-smelling pus, a fistula had formed which remained open for six months, then repeatedly closed and re-opened, and finally remained opened for about twelve months. There was an opening about half-an-inch above Poupart's ligament, and about one inch and a quarter to the inner side of the antero-superior spine of the ilium, through which, after some dilatation, the finger could be passed along a canal lined by mucous membrane into intestine. After an unsuccessful attempt to close the opening by excision of the fistula and bringing the raw edges together by sutures, the affected portion of intestine, at a subsequent operation, was freely detached from the muscular structure of the abdominal wall, brought well into view, and the orifice in its coats closed by bringing together with sutures of very fine silk the edges of the serous layer. Notwithstanding a free discharge of fæcal matter from the seat of operation on the sixth day, the wound gradually closed, so that three months later the patient had completely recovered. In the second case a similar, though much more extensive, operation was performed on a man, 25 years of age, who presented a fæcal fistula in the right iliac fossa, which had followed incision into a very large pelvic abscess, the purulent contents of which on the second day after this incision were found mixed with fæcal matter. After the surface of the affected portion of intestine had been exposed by a very large wound, about ten inches in length and six inches in breadth, a double fistula was observed. At a subsequent operation, the perforated portion of intestine was separated from the surrounding parts, the two fistulous orifices converted into one by division of the intervening bridge, and the peritoneal edges of this large opening brought together by sutures. In this, as in the former case, there was after the operation a fæcal discharge from the wound, but here it was very slight, and ceased at the end of the third week.

Dr. Riedel states that in neither of these cases could the starting point of the lesion be clearly made out. As there was no indication of previous intestinal disturbance, it cannot be assumed to have been typhlitis. Although the view of a glandular origin might be opposed by the fact that no lesion was observed on the lower limbs or on the genitals, still Dr. Riedel is disposed to think that the abscesses in these two cases, as in many instances of acute psoas abscess, really started in suppuration of some pelvic glands; and it is suggested that this glandular mischief may have been started by abrasion or fissure of the mucous membrane of the anus. Such pelvic abscess may burst at an early date into the gut and the pus be discharged by the rectum, whilst the passage of fæcal matter into the cavity of the abscess may be prevented by a valvular disposition of the margins of the intestinal opening. In the first case, the fistula had at one time remained closed for two years, although during this period there remained a large opening in the wall of the intestine. This opening must during this time have been hermetically closed by the firmly applied superjacent skin.

In dealing with a fæcal fistula of inflammatory origin Dr. Riedel exposes the seat of perforation, sets free the affected portion of intestine so as to be able to drag this to the surface, and then closes the orifice by sutures. He doubts whether the peritoneal cavity was opened in either of his two cases. No loops of smooth intestine were observed. Probably around the seat of the fistula in each case there had been formed, between the intestine and the abdominal wall, thin membranous adhesions which allowed the perforated portion of intestine to sink back into the abdomen, and yet prevented the passage of fæcal matter into this cavity. In Dr. Riedel's cases, the conditions for the success of his operative treatment were favourable, as the adhesions between the intestine and the anterior abdominal wall were of slight extent. In an instance of wide

union of these structures, it would be necessary to have recourse to resection of the perforated portion of intestine. W. JOHNSON SMITH.

ARTICLE 1448.

GODLEE ON THE TREATMENT OF EMPYEMA.

IN a recently published paper 'On Some Points in Connection with the Anatomy of the Pleura and the Treatment of Empyema' (*Annals of Anatomy*, July 1883), Mr. Rickman J. Godlee, of University College Hospital, discusses briefly at first the anatomical extent of the pleural cavity. The upper limit and the anterior border of the pleura are, it is stated, easily ascertained and well-known; whilst, with regard to the lower limit of this membrane, inaccuracy is common, and some degree of uncertainty exists. It reaches considerably below the normal lung, but not so far down, for the most part, as the lower border of the thoracic parietes. Behind, however, it corresponds most frequently to the head of the twelfth rib; being seldom higher, but not unfrequently much lower, than the eleventh dorsal spine, the variation depending principally upon the length of the twelfth rib and the corresponding length and position of the ligamentum arcuatum externum. This point, the author remarks, can hardly have any practical bearing upon the question of tapping the pleural cavity, as no surgeon would be likely to make even a second opening so far down: but it does bear upon the advisability of the removal of the twelfth rib in order to gain more room in difficult cases of lumbar nephrectomy, as it suggests the danger of opening the pleura in the course of such procedure. The actual line of the lower limit of the pleura at the side and anterior part of the chest is given with great minuteness by Luschka in his work on the topographical anatomy of the human thoracic organs. This minute description is summarised as follows by Mr. Godlee for practical purposes. Starting from the eleventh dorsal spine, the line passes horizontally outwards till it reaches the lateral part of the chest; it then ascends gradually, being distant in this position about two or three inches from the lower margin of the thorax, and then passes behind the seventh costal cartilage to the sternum, extending usually, as it passes towards the front, a little lower on the left than on the right side.

Mr. Godlee points out that selection of the lowest part of the pleural cavity for incision in opening an empyema does not afford the best possible drainage, and is open to very serious objections. In children, or where the chest-walls are not very substantial, an incision in the back is preferred, directly below or a little outside the level of the angle of the scapula, in the seventh, eighth, or ninth interspace, as the peculiarities of each case may make most desirable. If, however, the chest-walls be very muscular, it is thought that probably no spot would be more suitable than the fifth or sixth interspace immediately in front of the posterior fold of the axilla. Alluding to the statement of Mr. John Marshall as to the very frequent occurrence of spontaneous rupture of empyema at the same point in the thoracic wall—namely, just outside and below the junction of the fifth rib with its cartilage, and to the view that it would be well for the surgeon to imitate nature by selecting the same spot for incision, Mr. Godlee replies that Marshall's spot, though perhaps a common, is by no means the invariable point of rupture; and he seems inclined to hold that the second or third interspaces in front are perhaps the most usual seats of this perforation. If the obviously unsuitable positions be avoided, it is, Mr. Godlee believes, of far greater importance than the mere determination of the locality for the incision that the surgeon should follow a method of paracentesis that ensures a thoroughly free opening into the chest, and the certainty of free passage of the drainage-tube. In children he has, for some time past, adopted, as a routiné practice, the removal in all, or almost all cases, of a portion of rib. It is thought that it would be well to adopt the same plan in dealing with many cases of adults, since it is common for caries or necrosis of one or both ribs to occur when the incision has simply passed through an intercostal space, and that it is not by any means very rare to find, in a chronic case, that the ribs have become united together by means of two transverse bars of bone, one on each side of the sinus, so that the track passes through a narrow osseous ring.

As to the dressing, Mr. Godlee is convinced that the strict Listerian antiseptic plan is the best. It is thought that surgeons often make a mistake by keeping the drainage-tube in for too long a time. There is a very considerable absorbing faculty in the pleura, even after its contents have become purulent; and it is not therefore necessary, as in an ordinary abscess, to keep the tube until the cavity is reduced to a mere sinus. The advantage of allowing the opening to close as soon as ever the amount of secretion is so small that the absorbing power of the pleura may be counted upon to remove it, consists in the fact that two fresh agents are brought to bear upon the lung to cause it to expand; namely, this absorbing power, and the suction exerted by the chest-walls in the movements accompanying respiration. The antiseptic dressing should consist of a larger mass of gauze than is used in ordinary cases, and, after surrounding the trunk with a suitable number of circular turns of a soft muslin bandage, a piece of elastic webbing one inch wide should be carried round the upper and lower borders. If a turn of the muslin bandage be then taken over one shoulder and under the perinæum, and then back to the shoulder again, and secured to the upper and lower parts of the dressing in front and behind, there will be no chance of its slipping either up or down. With regard to the spray, Mr. Godlee points out that, if it be advisable to employ it at all, an empyema is *par excellence* the condition in which its use would seem most rational, for rapid sucking in and out of air during the dressing can hardly be prevented. If the case be treated antiseptically, it is seldom necessary to wash out the pleura.

W. JOHNSON SMITH.

ARTICLE 1449.

SABUCEDO ON THE TREATMENT OF YELLOW FEVER BY DISINFECTANTS.

DR. S. SABUCEDO, of Havanna, contributes to the July number of the *Revista de Medicina y Cirujia practica* an interesting article on the treatment of yellow fever by disinfectants. He considers it proved beyond doubt that yellow fever is contagious, defining it as an infectious and contagious pyrexia, having a high and pathognomonic temperature curve in the

first three or four days, oscillating commonly morning and evening between 39°, 39°·5 ; 39°·5, 40° ; 40°·05, 40°·5, 41° Cent., very rarely passing this, and rarely falling below 38° or 38°·5 Cent. in the evening. On the fourth or fifth day a marked remission is observed, and the temperature falls to 38° or 37°·2, or to the normal, or even below, one of two things then happening; either the disease terminates favourably on the fifth or sixth day, or the temperature rises to the level of the first oscillations, or even higher, the disease declaring itself in a grave form, hæmorrhagic, cholæmic, or uræmic, which rapidly kills the patient on the fifth, sixth, seventh, or eighth day. Another fact, important in diagnosis and prognosis, known to all who have watched the disease, is the presence of albumen in the urine. This symptom may appear in the first period of the disease, and the date of its appearance, its quantity and quality, are of great value in prognosis. As a rule, the earlier the albumen appears the more serious the case, especially if it be abundant, and if, on the addition of a drop of the reagent, it fall at once to the bottom of the test-tube like heavy drops of wax. On the other hand, if it appear late and be small in quantity and flocculent, the prognosis is favourable. With early abundant albumen appear other grave symptoms, hæmorrhagic, cholæmic, or uræmic.

Drs. Carmona and Freire have found in all cases of yellow fever in the vomit, in the blood, urine, and all the organic liquids, microscopic living organisms. Carmona calls them '*Peronospera lactea*,' Freire '*Cryptococcus vegetalis*.' These organisms constitute part of the fauna of the countries in which yellow fever reigns endemically (Gallardo); and this explains why the disease has its cradle in certain tropical zones of America, and accounts for the transmissibility of the disease to temperate climates when the climacteric conditions are favourable, as in the epidemics of Barcelona, Cadiz, and Gibraltar, and the almost annual epidemics of some of the Southern States. Yellow fever, then, is a parasitic disease, of high pyrexia, of special and pathognomonic curve, of rapid course, and causes death by profound attraction of the blood and tissues. Such being the genesis, etiology, and symptoms of yellow fever, the treatment indicated must be antithermic and parasiticide.

From July 17 to October 10, 1882, 164 patients attacked by yellow fever were admitted to the Integridad Nacional Hospital of Havanna. The diagnosis rested on the symptoms of the first period; violent headache, rachialgia, high fever, flushed face, injected conjunctiva, languid and lachrymose expression, tongue furred, or clean and red with hyperæmia of the gums ; the patient being usually able to fix the precise moment when he began to feel ill, the initial shivering, and the fact of the patient's recent arrival in the island. The treatment was commenced by an emetic of ipecacuanha, or of oil of almonds, with lemon-juice ; afterwards a purgative dose of citrate of magnesia. Two mixtures were given—one of 4 grammes of salicylate of soda, in 100 grammes of water ; the other of 1 gramme of carbolate of soda, in 100 grammes of water. Of these, one tablespoonful was given every hour alternately. Free sweating generally appeared immediately with a fall of temperature, which gave great relief to the patient. In favourable cases, the fever terminated in the afternoon of the third day, or in the morning of the fourth day. In grave cases the temperature rose again, but did not reach the original level. Albumen appeared in the urine, which, however, continued abundant. Of the 164 cases 91 terminated favourably, with the symptoms of the first period only, and without the appearance of albumen, and made a good convalescence ; 73 cases passed to the second stage, presenting various symptoms—albumen in the urine, gingival hæmorrhage, black vomit, melæna, other hæmorrhages, epistaxis, &c. Of these 73 nine died, or 12·3 per cent. In former years, with ordinary treatment, 30 to 50 per cent. died in the same hospital. These results are very encouraging. The author hopes this year to continue his researches, and to give a more exact and detailed record of cases.

G. D'ARCY ADAMS, M.D.

ARTICLE 1450.

VOGT ON THE ACTION OF FREE HYDROCHLORIC ACID IN GASTRIC DIGESTION.

DR. E. VOGT gives the following interesting summary (*Le Progrès Méd.*, No. 27, 1883) of the recent literature of this subject.

It is well known that during gastric digestion a certain quantity of free hydrochloric acid makes its appearance. Certain recent German publications attribute to the absence of this acid, in certain cases, a great symptomatic importance. Von der Velden (*Deutsches Archiv für Klin. Med.*, Band xxiii., p. 369), having procured by Kussmaul's pump some of the stomach contents during digestion, submitted it to various reagents, in order to detect the free hydrochloric acid. He found that by means of tropeoline (OO), a yellow colour, which changes to red in the presence of mineral acids, but is unchanged by organic acids, the presence of free hydrochloric acid could be readily discovered. Working with this method, he arrived at some interesting results ; he found (*Berliner Klin. Wochensch.*, 1877, p. 613) that in typhus the hydrochloric acid disappeared during the course of the malady, to reappear during convalescence. In dilatation of the stomach the acid was never absent, while in carcinoma he could never discover the least trace. This latter phenomenon could not be ascribed to mere weakness, as it was not present in most advanced cases of marasmus apart from carcinoma ; nor could it be attributed to any chemical action of the cancer-juice, as it occurred in non-ulcerated scirrhus. In one case, by this means, carcinoma was diagnosed in the absence of all other symptoms, and was confirmed on *post mortem* examination. In another case of suspected cancer the reaction negatived the idea, which was also confirmed by necropsy. In a case of cancer of the liver, the stomach being intact, the acid did not disappear.

A new series of researches (*Deutsches Archiv für Klin. Med.*, Band xxv., p. 105) showed that the saliva, which reaches the stomach mixed with the food, continues to act on the starch until the free hydrochloric acid appears, which is one and a half to two hours after the meal—a fact already observed by Lehmann (*Handbuch der Phys. Chemie*, p. 154, 1854). Consequently, the gastric digestion may be divided into two stages : the first, during which the saliva continues to act ; and the second, in which free hydrochloric acid is present, and in which the principal formation of peptones takes place.

Ewald (*Zeitschr. für Klin. Med.*, Band i., p. 619)

has objected to some of these conclusions. He finds that the presence of albuminates and blood, &c., interfere with the tropeoline reaction; that in many cases of carcinoma the reaction persists; and that the two digestive periods are not so distinctly separated, but that the diastatic action is rather diminished than suppressed by the rise in acidity of the gastric contents.

Von der Velden (*Deutsches Archiv. für Klin. Med.*, 1880) has replied by throwing doubts on the purity of Ewald's chemical reagents. He admits that there is no specific action in carcinoma, but thinks it a subject for inquiry under what circumstances the acid disappears. (In a letter to Vogt, Von der Velden admits having met with cases of cancer in which the reaction was present.)

Edinger (*Berl. Klin. Wochensch.*, 1880, No. 9, 117) found that the free acid was absent in two cases of amyloid disease of the stomach, and attributed it to endarteritis obliterans. He obtained the gastric contents by enclosing a small sponge in a gelatine capsule, which being attached to a thread, is swallowed by the patient; at the end of half an hour the capsule is digested, and the sponge being withdrawn, is soaked with gastric contents, which may be submitted to the necessary tests (*Deutsches Archiv für Klin. Med.*, Band xxix., p. 515: 1881).

Uffelmann, in his observations on a case of gastric fistula (*Deutsches Archiv für Klin. Med.*, Band xxvi., p. 431) preferred methyl violet to tropeoline. Edinger (*loc. cit.*) objects to this new reagent.

Sassesky found, in nine febrile patients, that the hydrochloric acid disappeared when the fever was accompanied by dyspepsia.

ROBERT SAUNDBY, M.D.

ARTICLE 1451.

MARTIN ON ACTION OF ALCOHOL ON THE HEART.

PROFESSOR MARTIN, of Johns Hopkins University, writes as follows in the *Maryland Medical Journal* for Sept. 1883.

Although the physiological effects of alcohol manifest themselves in many directions, we can only hope to arrive at valid conclusions by taking up the questions one by one. Our own researches made on dogs have been confined to a quite limited field —viz., what is the direct and immediate action of alcohol upon the heart, both as to its rate of beat, and as to the work done by it in a given time. Chronic abuse of alcohol of course affects the heart; but our inquiry has hitherto been limited to the immediate action upon the heart of a moderate quantity of pure alcohol added to the blood flowing through it; the heart being put entirely out of control by extrinsic nerve-centres, and isolated from all other organs but the lungs. In other words, our problem was: What is the immediate action, if any, exerted upon the heart by a single dose of ethylic alcohol?

As regards action upon the pulse-rate, our experiments confirm those of Zimmerberg and others; alcohol in doses not directly poisonous does not affect the rate of beat of the heart.

As to the influence of alcohol upon the work done by the isolated heart we have, however, obtained some results which we believe to be new.

Our method of experiment was as follows. A dog having been placed fully under the influence of morphia subcutaneously injected, its heart and lungs were isolated in the manner which I had the honour to describe to this Faculty two years ago.* The heart was then fed with defibrinated blood obtained by the previous bleeding of other dogs, and supplied to the superior vena cava, under a constant pressure of Mariotte bottles. These bottles were four in number; two of them arranged to contain and distribute blood containing no alcohol, and two of them blood containing alcohol. By stopcocks, any bottle could at will be connected with the heart. At the commencement of the experiment, the heart was fed with blood mixed with one-fourth its volume of 0·75 per cent. solution of sodium chloride in distilled water—2,000 cubic centimètres of blood mixed with 500 cubic centimètres of the salt solution. This blood, passing from right auricle to left ventricle, was sent through the lungs to the left heart, and from the left ventricle was pumped out into a tube connected with the right carotid artery. The aorta was ligatured immediately beyond the origin of this vessel. The tube connected with the right carotid conveyed the blood to a height sufficient to maintain about an average arterial pressure, as measured by a mercury manometer connected with the root of the left carotid. The pen of this manometer recorded on the kymograph not only the average arterial pressure, but the pulse-rate. Uniform and free artificial respiration was maintained by a water engine.

The mode of work was as follows. One of us took charge of the kymograph, and was also responsible for time signals. All being ready, the heart was placed in connection with a flask containing good blood, and allowed to pump blood from this flask into another. Let us call the four flasks A, B, C, and D respectively. When flask A was empty and B filled, it was easy, by opening and closing the proper stopcocks, to supply the heart from B and let it pump into A, and so on, to and fro, with the good blood for a certain time. At short intervals, the blood pumped out by the heart in a minute was collected separately and measured. As soon as it was found that this work was pretty constant, varying not more than 10 cubic centimètres in a minute, the good blood was shut off and the poisoned blood from C turned on; this was pumped into D and collected there. While this poisoned blood was circulating, the quantity pumped out by the heart was measured from minute to minute; then good blood was again turned on, and the measuring continued. Any experiment in which the heart did not under these circumstances show marked recovery from the action of the alcohol was rejected, so as to avoid the risk of ascribing to the alcohol something which was possibly due to the independent death of the heart.

The general result of our experiments may be primarily stated as follows. Blood containing one-eighth per cent. by volume of absolute alcohol has no immediate action on the isolated heart. Blood containing one-fourth per cent. by volume—that is, two and a half parts per thousand of absolute alcohol—almost invariably remarkably diminishes within a minute the work done by the heart; blood containing one-half per cent. always diminishes it, and may even bring the amount pumped out by the left ventricle to so small a quantity that it is not sufficient to supply the coronary arteries: hence blood is drained off by them from the outflow tube,

* Transactions of the Medical and Chirurgical Faculty of Maryland 1882, p. 203.

and at last none is pumped out from its upper end at all.

We may here point out that the dose of alcohol was not *à priori* a large one. A man weighing 150 lbs. contains about 11½ lbs. of blood. One quarter per cent. of this is 0·46 of an ounce, a quantity exceeded by that in a single ordinary drink of brandy; and some people take a good many such drinks in a day. Moreover, the alcoholised blood in our experiments could hardly have acted on the heart as it flowed through its cavities. It must almost certainly have acted on the heart after it flowed through the coronary arteries to the capillaries of the organ, and came into close relation with its muscular and nervous tissues. To get to these capillaries it had first to circulate through the lungs, and there is no doubt that some of even the small quantity of alcohol present was eliminated.

What is the cause of this diminution in the quantity of blood pumped out?

Differences in the flasks and rubber tubes being excluded as causes of the phenomenon, we have to seek for it in some action exerted by the drug on the living organs; and here several possibilities suggest themselves. It might be that the alcohol constricted the pulmonary vessels, and so prevented the blood from reaching the left ventricle as freely as before; or it might be that it dilated the coronary arteries, and so drained off more blood through the coronary circuit, and thus left less to be pumped out from the exit of the flowing tube; or it might be that the pumping power or the capacity of the left ventricle was altered; or, of course, there might be combinations of these.

We were set on the right track one day, when we modified the experiment by cutting away the pericardium before administering the alcohol. To our surprise, even blood containing ½ per cent. of alcohol now had little or no effect on the work done by the heart.

We tried this repeatedly in another manner. Keeping the heart in the pericardium, we administered alcohol and got the usual result; then recovered the heart by good blood, cut away the pericardium, again gave alcohol, and now with little effect. As the absence of the pericardium could hardly in any conceivable manner prevent constriction of the pulmonary arterioles, or prevent dilatation of the coronary vessels, it was clear that neither of these would account for the results of the administration of alcohol.

Our attention was therefore turned to the proper heart-substance. Direct observation of the organ, in fact, showed it to become enormously distended when supplied with the alcoholised blood. Normally, the dog's ventricle contracts so as to completely empty itself and obliterate its cavity. Under the influence of alcohol this is entirely changed: the ventricle ceases to contract completely; even at the height of its systole the organ completely or nearly completely fills the pericardiac sac; in its diastole, it has little or no room to expand further and take in a fresh supply of blood.

Hence a great diminution in the quantity of blood which it has ready to pump out at its next contraction. If now the pericardium be cut away, the heart enlarges enormously in diastole, takes in its usual quantity of blood, and drives it out at the systole: hence the organ performs its usual amount of work. This seems to show that the muscular power of the organ is not at first influenced; if the heart be not confined in the pericardium, and the quantity of alcohol in the blood flowing through it do not exceed ½ per cent. by volume, the work done is not affected—at least for a considerable time. It is not the contractile power, but the elasticity of the cardiac muscle that is influenced; its 'tone' is lowered, and it works under new and (when the pericardium is present) very favourable conditions. It acts like a greatly relaxed muscle, which contracts to half its normal extent, compared with a healthy muscle, in good tonic state, which, when fully extended, is shorter than the atonic, and whenever it contracts, contracts more completely; and, so far as the heart is concerned, to the fullest possible extent. If, however, the administration of alcoholised blood of ¼ or ½ per cent. be long continued, or if blood containing 1 per cent. of alcohol be used, then, even with the pericardium removed, the systole becomes feebler and feebler, the work done less and less, and finally *nil*.

Whether alcohol directly combines with the cardiac muscular tissue, or whether it indirectly influenced it by interfering with its nutrition, we are not able to say. The rapidity with which the effect manifests itself seems in favour of direct poisoning; on the other hand, the dog's heart will only bear a very brief deprivation of oxygen, and it has been shown that alcohol added to the blood makes it hold its oxygen more firmly and yield it less readily to the tissues; and the heart subjected to alcohol has very much the appearance of the heart of an asphyxiated animal. On the whole, we are inclined to think that the poisoning is direct.

We have made a few experiments, to see what dose of alcohol given by the stomach to a dog will produce some similar action on the heart. When the heart lies in the body and in connection with the central nervous system, there are of course considerable difficulties to be overcome; and all we can say as yet is, that to get any distinct influence on blood-pressure, one must put much more alcohol into the stomach than an amount equal to ¼ per cent. of the total blood in the animal. It is either not absorbed fast enough to reach at any moment the heart-poisoning limit, or more probably is picked up by other organs, very likely the liver, and held back from the heart.

We then tried in another way, by directly injecting into the jugular vein of a curarised dog a small quantity of salt solution containing an amount of alcohol equal to ¼ per cent. of the total blood of the animal, reckoned as one-thirteenth of its weight. In such cases we found usually a very temporary enfeeblement of the heart, indicated by a lower arterial pressure, but this seems only to last while the injected solution is flowing through the organ, or for a few seconds afterward. Before the blood returns it has apparently deposited its alcohol elsewhere in the body, or at any rate got rid of it somehow, so that it no longer acts immediately upon the heart, at least to a directly noticeable extent.

ARTICLE 1452.

CORNIL ON THE HISTOLOGY OF ELEPHANTIASIS ARABUM.

M. CORNIL (*Le Progrès Méd.*, No. 37, 1883) gives the following description of the histology of a case of elephantiasis Arabum sent him by Professor Girard of Grenoble.

The *spleen* was very large, hard, smooth, dark brown, distinctly amyloid; the arterioles, corpuscles, capillaries, and veins, being affected.

The *kidneys* were amyloid, with hyaline cylinders *in situ*, and fatty degeneration of the epithelium.

The *liver* presented no amyloid disease; there was fatty degeneration.

The *skin* of the region affected was irregular, granular, warty, rough, covered with a thick layer of epidermis, except in one part, four or five centimètres square, which was depressed and ulcerated. The epidermis was thick and hard, the papillary layer normal, the true skin one to two centimètres thick, resistant, and containing a clear fluid in its meshes. The ulcerated patch was covered by a thin layer of granulations, one millimètre thick; the true skin below was one centimètre thick, and below that was the cellular tissue. The papillæ were well developed, giving rise to rough and warty appearance of the surface.

Epidermis.—The Malpighian layer was normal; the granular layer coloured vividly with carmine, showing that its cells contained much eleidine; and patches of this substance lay in the horny layer. The latter was very thick and hard, and the superficial layer desquamated, and often broke away in the sections.

Papillary Bodies.—These structures were generally enlarged transversely as well as vertically, their shape being variable—conical, globular, or hemispherical. Their tissue was composed of fibres and loose connective tissue, with flattened and a few round cells. In some, the red corpuscles were extravasated between the fibres, forming true ecchymoses; but the corpuscles were unaltered, and therefore were probably extravasated shortly before death. The capillary vessels were dilated, measuring 4 to 6 hundredths of a millimètre. Their walls were thin, and they were filled with blood-clot.

Dermis.—The true skin was formed of fibres running parallel to the surface, and traversed perpendicularly by vessels mounting to the bases of the papillæ, which were accompanied by certain fibres running parallel to their coats. Between the first order of fibres were numerous fusiform or flattened cells, and a large number of round or lymphoid elements. These vessels, like those of the papillæ, were filled with clot. The lymphatic vessels were much dilated, and contained lymphatic cells entangled in fibrine, and were lined with swollen epithelioid cells. The intradermic portions of the sweat-glands were elongated, and the calibre of the tubes widened, their epithelium increased, and their lumens filled with granules and detached cells.

Ulcerated Portion.—The surface was covered with an embryonic tissue; below, the dermis was as described elsewhere. In a certain number of vessels, there were heaps of micrococci.

The nerves of the affected leg were enlarged to at least a third more than their natural size. The neurilemma was increased, but there were patches of cellulo-adipose tissue in the nerve which contributed to increase its bulk. The axis-cylinders were irregular in size; some had disappeared, or were represented only by a zone of granules.

The lymphatic glands were very large and homogeneous from inflammatory hypertrophy. Their follicles were dilated, containing large cells and micrococci. The lymphatics were dilated, and the capsules thickened.

The muscles examined were normal.

The femoral artery was thickened by a little endo- and peri-arteritis. The femoral vein showed a little peri- and endo-phlebitis; but both these vessels were free.

The bones were not sent, but M. Girard said the fibula was as large as an adult tibia, and the tibia as large as a femur.

ROBERT SAUNDBY, M.D.

ARTICLE 1453.

ERCOLANI ON THE PATHOLOGICAL ALTERATIONS OF SYPHILITIC ORIGIN IN THE HUMAN PLACENTA.

ANATOMISTS differ as to the structure of the fœtal villus, especially as regards its external envelope, which some regard as belonging to the fœtus, while others, amongst whom is Ercolani, think that it belongs to the mother. The intimate structure of the placenta is not understood, because of the wrong views held of the origin and constitution of the decidua, and because due regard has not been paid to the early phases of its development. Nearly all anatomists are agreed that after conception the uterine mucous membrane becomes thickened and vascular, and is gradually transformed into the decidua. Ercolani (*Bulletino delle Scienze Med.*, April 1883, and *Annali Universali de Medicina*, July 1883), on the contrary, thinks that there is a true new formation of cellular elements, elaborated by the walls of the capillary vessels denuded by the shedding of the epithelial layer of the internal surface of the uterus, which takes place after fecundation. The hypertrophy of the utricular glands attests their exaggerated functional activity; and by their secretion the fecundated ovule, after its descent into the uterus, is fixed to the young newly formed elements of the decidua, which proliferate round it and cover it, forming the decidua reflexa. Between the ovum and the uterine wall there is found a layer of decidual elements, the decidua serotina of the old anatomists; this grows and becomes the maternal portion of the placenta, and is pervaded by a network of vessels coming from the uterus. The fœtal villi arising from the opposite surface of the chorion bury themselves in this layer of decidual cells. These facts are recognised by all. The decidual layer, according to Dr. Ercolani, is entirely due to the new formative process, while the spongy space beneath it is due to the dilatation and new formation of the utricular glands. As pregnancy advances, two other facts are established about which there is no disagreement: 1, the proliferation of branches from the trunks of the fœtal villi; 2, the ectasic process which invades the maternal vessels. Up to the third month, the maternal and fœtal portions of the placenta are easily separated: after this period it is impossible. The author denies the formation of lacunæ, as explained by Kölliker, and maintains that, as a consequence of these two processes, proliferation of the branches of the villi and the ectasic process affecting the maternal vessels, the villi protrude into the interior of the vessel, against which they exercise pressure, while the epithelioid wall of the vessel adapts itself to the form of the villi, thus forming to them a sheath which redoubles that already formed by the decidual elements elaborated from the external walls of the vessel, and thus gives rise to the appearance of the trunk and branches of the villus floating in the blood of a lacuna.

Accepting this explanation, the mode of nutrition of the fœtus is the same in the first as in the last month of pregnancy: the maternal portion represented by the placental cells is always in relation with the fœtal absorbing surface represented by the villi, and the relation only becomes more intimate as pregnancy advances. According to Kölliker, the villi are formed of connective tissue pervaded by a fine network of vessels, and covered externally by epithelium, which is formed of two layers, the superficial subtle and diaphanous, the deep disseminated with nuclei. This is correct in fully formed placentæ. Ercolani holds that the fine diaphanous external layer is formed from the introflexed epithelioid part of the maternal vessel, and the deep nucleated layer from the decidual elements, the nuclei only being here visible. In the early stages of the development of the placenta, when the two parts are still to be distinguished, the epithelium investing the villi is of the pavement variety, large cells with distinct outlines, with a granular nucleus double the size of the nuclei of the so-called deep layer of the villi of the completely formed placenta; the external diaphanous layer is completely wanting. Every trace of this pavement-epithelium has disappeared in the villi of the fully formed organ.

Dr. Ercolani describes the material alterations which syphilis induces in the parenchyma of the different tissues and organs, and then considers in what parts and to what extent these alterations are found in syphilitic placentæ. A fact as to which all agree, is the massive form which the fœtal villi assume; but as to the nature and seat of this enlargement there are various opinions, especially as to whether the maternal or the fœtal structures are originally implicated. The opinions entertained must necessarily differ, according to the idea held of the anatomy of the villus. Ercolani describes as the first stage an infiltration into the elements of the affected organ of small round cells or lymphoid corpuscles, and a gummatous or colloid degeneration of the infiltrated elements and of those of the surrounding tissues as the last stage of the pathological lesion. He was able to demonstrate these alterations in the maternal portion, and thus to bring new proof of the maternal source of the external envelopes of the villi. In the fully developed placenta, it appears impossible to decide whether the syphilis is of paternal or of maternal origin. So close is the connection between the maternal and fœtal structures, that the syphilitic virus must easily pass from one to the other. In syphilitic placentæ examined, the most profound, and hence probably the oldest, alterations were observed sometimes in the fœtal, sometimes in the maternal portion. Does this depend on the double mode of origin the disease may have in the fœtal envelopes? It is not illogical to suspect it.

Ercolani concludes by passing in review the alterations which most likely have nothing in common with syphilis. Among the alterations observed in the parenchyma of the villi are: 1. Cystoid myxoma of the villi; 2. Melanosis of the villi; 3. Transformation into fibrous tissue of their parenchyma; 4. Hypertrophy and simple hyperplasia, and perhaps degeneration into mucous tissue of the connective elements of the parenchyma of the villi, with more or less extensive obliteration of the fœtal vessels with calcareous degeneration more or less diffused. These alterations, proper to fatty placentæ, are observed also in syphilitic placentæ. Among the differential characteristics are the absolute and constant absence, in so-called fatty placentæ, of gummatous degeneration in the hypertrophied elements of the parenchyma of the villi, this being generally observed in syphilitic placentæ; in fatty placentæ the cellular or decidual elements, the maternal envelope, or the so-called deep nucleated layer of the epithelium of the villi is not affected. Other alterations are: 5. Fatty degeneration and consequent extensive calcification of the parenchyma of the villi; 6. Dilatation as well as the obliteration of the vessels of the villi; 7. Of the degeneration described by Oedel into fibroid, hyaline, or colloid substance of the parenchyma of the villi, there are not facts enough to warrant a final judgment; but it may be surmised that we have to deal with a syphilitic lesion of the placenta, or with a syphilitic gummatous degeneration of the parenchyma of the villi.

As to the pathological alterations observed in the maternal portion of the placenta, it appears that syphilitic origin may be excluded in—1. Melanosis, or infiltration of granules of pigment in the placental cells; 2. Transformation into fibrous tissue of the cells of the uterine and subchorionic parts of the maternal placenta, and of the decidual or placenta cells of the envelope of the villi, which the author distinguishes by the names of fioruma of the serotina and of the maternal envelope of the villi; 3. Fatty degeneration of the placental cells, with or without obliteration of the vessels, with or without calcareous degeneration; 4. Thrombosis and hæmorrhage or apoplexies of the placenta; 5. He would not consider as syphilitic an alteration described by Virchow as a syphilitic endometritis, but regards it as an arrest of development by the formation of lacunæ, giving rise to an anomalous vascularisation of the organ and an apparent angioma of the serotina. 6. Abscesses and cystic tumours.

Some doubt must be raised by the morbid form indicated by Ercolani under the name of myxoma of the serotina, or of the glandular organ which involves the villosity of the placenta, in distinguishing it from the hydatiform placenta properly so-called, determined by the myxomatous degeneration of the parenchyma of the villi as explained by Virchow.

G. D'Arcy Adams, M.D.

Article 1454.

CAMMAN ON THE ORIGIN OF CREPITANT AND SUBCREPITANT RÂLES.

Dr. Camman, in the *Canada Medical Record*, p. 258, takes exception to the ordinary explanation of the crepitant and subcrepitant râles of pneumonia, that these are due to the passage of the current of air through exudations from the alveolar walls, and that the different varieties of sound depend on the differences of density of the fluid through which the bubbles of air pass.

He maintains that, the interchange of foul and fresh air being mainly performed by the diffusion of gases, the actual movements in the air in the smaller bronchi and alveoli due to the respiratory motion are slight, and especially so when this motion is further impeded by the exudation of fluid into the air-cells, or by secretion in the small bronchi. On the other hand, Dr. Camman holds that the crepitant and subcrepitant râles are due to pleuritic friction,

and bases this opinion, not only on his own experience, but also on the results of the United States Commission on the Contagious Pleuropneumonia of Cattle. It seems that Dr. Leaming examined a number of these cattle during life, and in every case where râles had been heard, pleuritic exudations were found after death; and conversely, where pleuritic exudation was found, there had been râles. In six cases of these, one lung was completely consolidated, and therefore no air could enter, nor could râles be produced.

The author does not appear to see that pleuritic friction will not explain either the variety of râles or the period of respiration during which they are heard. He cannot have noted the various auscultatory stages of a case of ordinary croupous pneumonia, and have compared them with the changes in the expectoration, or he would hardly have arrived at the above conclusion. The obstruction caused by the pressure of the walls from distended vessels and serous infiltration, and by the viscid secretion, shows itself in the smaller bronchi, first by a slight roughness of the breath-sound, and, as the exudation increases, the bubbling of air through a viscid fluid gives rise to the fine crepitant rhonchus. When the exudation still further augments, the tubes are so blocked that no air at all enters, and the lung becomes consolidated, and the crepitant rhonchus is then replaced by bronchial breathing and bronchophony; and doubtless it was in this stage that the lungs of the pleuropneumonic cattle were found after death by Dr. Leaming. We are surprised that Dr. Camman concludes from the presence of pleurisy, a common, but by no means invariable, accompaniment of croupous pneumonia, that the physical signs are due to this alone, and overlooks the whole chain of intrapulmonary pneumonia which must have preceded the consolidation.

C. THEODORE WILLIAMS, M.D.

MEDICINE.

RECENT PAPERS.

1455. CHARCOT.—On Different Forms of Aphasia. Lectures reported by Dr. G. Rummo. (*Gazz. degli Ospitali*, 1883, Nos. 38, 40, 44, 49, 50, 59, 60, 61.)

1456. SENFFT.—An Epidemic of Pneumonia. (*Berlin Klin. Wochensch.*, Sept. 17.)

1457. PRIOR.—The Occurrence of Three Infectious Diseases in the same Individual within one Month. (*Deutsche Med. Wochensch.*, Aug. 1.)

1458. LEVY.—Diphtheritic Weakness of the Heart. (*Deutsche Med. Wochensch.*, June 27.)

1459. HENOCH.—Nervous Disturbances from Indigestion. (*Wien. Med. Blätter*, July 5).

1460. BROADBENT.—The Causes and Consequences of Undue Arterial Tension. (*Brit. Med. Jour.*, August, p. 357.)

1461. BENNET.—Sea-Sickness and its Prevention. (*Brit. Med. Jour.*, August, p. 270.)

1462. HART.—The Prevention of Cholera. (*Brit. Med. Jour.*, July, p. 181.)

1463. KENDALL.—Scarlet Fever with Suppuration of the Right Eye. (*Brit. Med. Jour.*, June, p. 1225.)

1464. BRISTOWE.—Death from Cerebral Hæmorrhage in Purpura. (*Med. Times and Gaz.*, July, p. 87.)

1465. COUPLAND.—Abdominal Aneurism Opening into the Duodenum. (*Med. Times and Gaz.*, July, p. 65.)

1466. CHEVERS.—Cholera Asiatica Maligna. (*Med. Times and Gazette*, Sept., p. 232.)

1467. BLANC.—Malarious Cholera. (*Lancet*, August, pp. 228 and 271.)

1468. WORTABET.—Another Epidemic of Trichinosis near the Sources of the Jordan. (*Lancet*, August, p. 183.)

1469. WHITTLE.—A Case of Diabetes; Death thirty hours after Visit. (*Lancet*, Sept., p. 368.)

1470. THIN.—A Peculiar Disease of Hot Climates. (*Practitioner*, Sept., p. 169.)

1471. AUSTIN.—Acute Rheumatism as a Premonitory Symptom of Phthisis. (*Lancet*, July, p. 10.)

1472. MALLINS.—Jaundice from an Ascaris in the Biliary Duct. (*Lancet*, June 1, p. 1123.)

1473. WILLCOCKS.—Some points in the Pathology of Anæmia. (*Practitioner*, July 1883.)

1474. NEALE.—Cancer of the Stomach. (*Practitioner*, July 1883.)

1475. ROBERTS, J. B.—The Diagnosis of Perinephritic Abscess. (*American Jour. of Med. Diseases*, April.)

ART. 1455. *Charcot on Aphasia.*—These lectures, previously unpublished, have been reported (*Gazz. degli Ospitali*) by Dr. Rummo, with the consent of the author. Aphasia is divided into four varieties, depending upon the elements of which speech is composed. Two are motor, and two sensory. The motor forms of aphasia are: first, loss of memory of the processes used in articulating; and, secondly, loss of memory of the processes used in writing—agraphia, or aphasia of the hand. There is no paralysis; other kinds of movement are performed without difficulty. The motor memory for those special movements is alone destroyed. The sensory forms of aphasia are: first, visual aphasia or loss of memory for written signs (*word-blindness* of Kussmaul); and, secondly, auditory aphasia or loss of memory for spoken words (*word-deafness* of Kussmaul). The chief value of these lectures lies in the fact that, while these different varieties of affections of speech are usually seen only in combination, Prof. Charcot has had the good fortune to see the two motor forms and the visual absolutely separate and uncomplicated. One patient was unable to speak, although he could read, express himself in writing, and understand what was said to him. One instance of pure agraphia was observed. The patient could speak, read, and understand what he heard; he had simply forgotten how to write. Another patient could speak, could understand what was said, and, though able to express himself in writing, was unable to read, and it was only by retracing the characters that he was able to spell out even what he had himself written. The cases of word-deafness that have been recorded have been very rare, and the author does not think that they are at all conclusive. In regard to the localisation of the visual centre, experimental research is put aside for two reasons. In the first place, it is not safe to argue from dogs and monkeys to men; in the second place, the results obtained by different investigators are at variance; Ferrier, for example, placing this centre in the *pli courbe* (angular gyrus), Munk in the occipital lobe. The centre for the motor memory of articulation is fixed by necropsies for right-handed persons in the foot of the third left frontal convolution. One case is on record in which the island of Reil was alone affected. The motor memory for writing is ascribed by Exner to the foot of the second left frontal convolution. The visual and the auditory memory for words are seated respectively above and below the horizontal branch of the fissure of Sylvius; the visual centre being in the *pli courbe*, the auditory in the

first temporo-sphenoidal convolution. It may be added that the author and Pitres are preparing a work to establish their view, that all the motor centres of the cerebral cortex are grouped in the two vertical convolutions respectively in front of the fissure of Rolando and behind it; namely, the ascending frontal and the ascending parietal. It should be mentioned that hemiopia or more or less narrowing of the field of vision usually accompanies word-blindness (loss of memory of written signs); a fact generally unobserved. Hemiopia is, therefore, sometimes due to a cortical, and not to a basilar lesion or affection of the optic tract. It may be added that the honour of having sown the first germs of the theory of word-blindness and word-deafness is assigned to Broadbent. Although that author did not coin special names for these disorders of speech, he and Bastian must be considered forerunners of Kussmaul and Werniche.

WILLIAM R. HUGGARD, M.D.

1456. *Senfft on an Epidemic of Pneumonia.*—Dr. Senfft, of Wiesbaden, describes (*Berliner Klin. Wochensch.* Sept. 17), an epidemic form of pneumonia which was observed in November 1882, in Erbenheim, a well built town situated on a high plateau, having 1,500 inhabitants. No case of typhus had been seen there for upwards of five years, and, according to the statistical record of Dr. Senfft, kept during many years, the percentage of pneumonia, to all other diseases, had been four only. In the short space of twenty-two days (from Nov. 2 to 24) fifty-nine persons had been sufferers from pneumonia. The highest daily number of attacks (seven) occurred on the 11th, and thence declined to the 16th, when it rose to six, and thence subsided to the 24th. The diagrammatic curve thus formed, corresponded closely with the curves of the meteorological record, during the same period, with reference to barometrical pressure, temperature, hygrometric conditions, and wind. The highest number of cases coincided with a low barometer, high degree of relative moisture, and a south-west wind, and rainfall. Concurrently with this epidemic pneumonia, an epidemic influenza prevailed among children in a neighbouring town. Of the fifty-nine cases of pneumonia, twenty-four were males, and thirty-five females. The ages varied from one year to over sixty. Twenty-six cases occurred between the ages of one and five years, and sixteen from five to ten years. The mortality was 2·95 per cent. Several deaths were attributable to complications with other diseases. In thirteen cases the inflammation occurred on the left side, in twenty-six on the right, and in twenty on both sides of the chest. It was observed as a point of interest, that a great proportion of the cases presented the lobular form of inflammation. In many cases pleuritis was also found. The average duration of the cases was eleven days. With reference to bodily temperature, a morning remission and evening exacerbation were generally noticed. The temperature of from 40° to 41° C. (= 104°-105° F.) was usually a fatal indication. The evidence of the contagion of this epidemic was found in the occurrence of the majority of the cases in the same streets, and among relations. A few weeks after its subsidence, an epidemic of influenza appeared in Erbenheim under similar meteorological conditions. W. B. KESTEVEN, M.D.

1457. *Prior on the Occurrence of three Infectious Diseases in the same Individual.*—Dr. Prior, assistant to the Royal University Polyclinic in Bonn, communicates to the *Deutsche Med. Wochensch.*, Aug. 1, a case in which three different infectious diseases occurred in the same individual in the space of one month. Three children were attended on Nov. 18 for well-marked scarlatina, with a temperature of 104° Fahr., copious eruption, and some difficulty of swallowing. Desquamation began on Nov. 21, and proceeded normally, only one child having slight renal symptoms, until, on Dec. 1, the two younger were attacked with rigors, headache, and malaise, and on the following day were covered with a thick eruption of varicella. On Dec. 3, in the absence of the mother, a child from the next room, intercourse with which had been carefully avoided on account of measles, was found playing with the child, and showed signs of measles next day. The first patients were now carefully watched, and on Dec. 13 the temperature was found to be raised, with photophobia and slight coryza; on the 15th the eruption of morbilli appeared. Its course was protracted, and caused some anxiety; but, finally, the children recovered. The cases show how the two poisons of scarlatina and varicella may be in the organism at the same time, and how measles may be conveyed by a two hours' intercourse in the prodromal stage, while the crusts of varicella are still present, the measles showing itself as soon as ten days later.

1458. *Levy on Diphtheritic Weakness of the Heart.*—At the meeting of the Verein für Innere Medicin, on June 18 (*Deutsche Med. Wochensch.*, June 27), Herr Levy described a case of diphtheritic weakness of the heart in a boy aged 13. Four weeks after the beginning of the attack of diphtheria, when he was so far recovered from the slight subsequent paralysis that the day was fixed for his return to school, an attack of sudden faintness came on, preceded by palpitation and difficulty of breathing. The pulse was 100 to 120, very small and extremely irregular, sometimes even stopping for a beat or two, and the breathing was impeded; but consciousness was intact, and the patient heard all that went on around him. These attacks recurred four or five times a day for the first fortnight, generally coming on quite suddenly, and leaving the boy in the intervals very weak and anæmic, with much palpitation of the heart. The attacks gradually became less frequent, and two months after their commencement they ceased entirely for three weeks, so that the boy returned to school—only, however, to be obliged to rest again on account of faintness, although it was less than before. He had now been suffering for four months; but, as there was no sign of dilatation or other organic mischief in the heart, the careful nursing which he was receiving at home would probably end in cure. In the subsequent discussion of the case, Herr Leyden expressed his opinion that the lesion in such cases lay in the cardiac substance itself, and was not dependent on disordered innervation.

1459. *Henoch on Nervous Disturbances from Indigestion.*—Professor Henoch, of Berlin, relates, in the *Wien. Med. Blätter* of July 5, some cases which occurred in his practice, in which various psychical and nervous symptoms resulted from indigestion. One little girl, three years of age, became aphasic suddenly, and when seen an hour afterwards was not able to utter a word, except a cry on being pinched. Speech returned soon afterwards, immediately on the child vomiting a cherry which had been swallowed without being chewed. One or two other similar cases, which he describes, have occurred; and the pulse is generally somewhat retarded, but is never

irregular, as it is in commencing meningitis, for which this condition might be mistaken. In one case, paralytic symptoms followed the disappearance of the psychical. An emetic seems to be the remedy indicated, as improvement always followed the emptying of the stomach. ALICE KER, M.D.

1460. *Broadbent on the Causes and Consequences of Undue Arterial Tension.*—Dr. Broadbent opened a discussion in the Section of Medicine at the annual meeting of the British Medical Association, on the causes and consequences of undue arterial tension (*Brit. Med. Jour.*, August 1883, p. 357). High arterial tension exists whenever the artery is full between the beats, so that it can be rolled upon the fingers like a tendon in the wrist. When the pulse-wave is short, it usually indicates dilatation of the left ventricle and incipient failure of the heart. The main cause of unduly high arterial tension is resistance in the peripheral circulation. In excitement and nervousness there is, with the heightened action of the heart, contraction of the peripheric arterioles, producing a temporary rise of tension. In hysteria, there is protracted spasm of the arteries and high tension, and both in hysteria and in nervousness one familiar result is excessive secretion of dilute urine. The author enumerates the conditions under which arterial tension arises, and makes a few remarks on them. The conditions are: 1, renal disease of whatever kind, except acute suppurative pyelitis, and nephritis; 2, gout; 3, lead-poisoning, which frequently gives rise to gout and kidney-disease; 4, pregnancy; 5, anæmia, especially chlorotic anæmia; 6, emphysema, chronic bronchitis, and sometimes even phthisis; 7, inherited tendency; 8, constipation. The author then touches on the consequences of arterial tension, commencing with the effects on the heart, then going on to the valves, arteries, and arterioles. Secondary effects of the changes in the heart and blood-vessels are among the most serious of the consequences of undue tension in the arterial system. Prominent among them is cerebral hæmorrhage. When, with degeneration of the vessels, the heart has become weak and fatty, we have the conditions which give rise to imperfect supply of blood to the tissues, and the effects of this usually become manifest in the brain. Sleeplessness, breathlessness, depression of spirits, headache, and many other symptoms, including neuralgia, may often be relieved by employing treatment which will reduce the arterial tension. The careful administration of calomel is of the greatest value.

1461. *Bennet on Sea-Sickness and its Prevention.*—Dr. Henry Bennet, in the *Brit. Med. Jour.*, August 1883, p. 270, writes saying that he has found black coffee (*café noir*), taken about an hour before starting on a short sea voyage, an excellent remedy for sickness. The stomach ought to be empty, a light meal having been taken four hours previously to starting; and then an infusion of about 1½ ounces of pure coffee-powder, in about 4 ounces of boiling water, should be taken about an hour before sailing; or, if milk be preferred, it must be taken about two and a half hours before. The tonic effect of coffee lasts eight to ten hours; and Dr. Bennet says that the above plan has shorn the Channel of its horrors in his case and in that of many others. In the continued sickness of long voyages, great benefit may be derived from the injection into the rectum at night of 15 to 20 drops of laudanum in 1½ ounces of warm water.

1462. *Hart on Prevention of Cholera.*—Mr. Ernest Hart (*Brit. Med. Jour.*, July 1883, p. 181), at a meeting of the National Health Society, gave an address on 'The Powers and Duties of Individuals and Communities for the Prevention of Cholera and Diarrhœa.' He first took the history of cholera, and referred to the epidemic of 1848, when the causation of this disease first became the subject of organised scientific inquiry. Impure water was the readiest propagator, and it was an anomaly in our legislation that there were no penalties, so far as the author knew, upon any companies for distributing impure water to our houses. As for quarantine and cordons, both have proved to be alike cruel, selfish, morally wicked, and medically useless; long ago, in our Indian dependencies, we have learnt to rely upon inspection, cleanliness, isolation, and disinfection. In conclusion, Mr. Hart observed that cholera was no longer a mystery, and had lost much of its terror. It was not infectious by simple contact, and it was known how to check its progress. As a precaution against cholera, it was the duty of each head of a household to see that the drainage was complete and safe; that the water-supply was uncontaminated by the sewage; and that, especially in old houses, there was no cesspool beneath the basement. The simplest kind of disinfectant for dirty linen, used in suspected cases, was a weak solution of chloride of lime, or a solution of carbolic acid. It was remarked that, cleanly as the English were, they took no precautions to ensure the cleanliness of their servants. Disinfectants should not be used as deodorisers; all causes of bad smells should be removed before the use of any disinfectants. Individual precaution should be exercised, and the mildest case of diarrhœa should be treated as of the utmost importance.

1463. *Kendall on Scarlet Fever, with Suppuration of the Right Eye.*—Mr. Kendall, in the *Brit. Med. Jour.*, June 1883, p. 1225, reports a case of a child, aged 8, who was attacked with scarlet fever. On the second day of the illness the right eyelid became much swollen; and a day or two afterwards two brownish growths appeared, one on each side of the corea, springing up from the conjunctiva. The following day the eyeball itself became much swollen; it was tense, the cornea was wrinkled, and somewhat steamy. Pus then appeared in the anterior chamber, which was let out by puncture. After the operation the eye began to shrink, and the two growths before mentioned dried up and dropped off. For a few days the eye improved, but the lid became much swollen, with marked fluctuation of the lacrymal sac, from which pus was evacuated. The eye again commenced to suppurate freely, and excision was performed. The patient mended after the operation, but died suddenly a few days afterwards. No *post mortem* examination was allowed. [Mr. Bayler, in the *Lancet*, Sept. 1877, p. 391, reports the histories of two sisters who became totally blind after an attack of scarlet fever. In these cases the eye was not disorganised, nor were there any marked changes to be discovered upon ophthalmoscopic examination. (Vide *Medical Digest*, sect. 79: 1.)—*Rep.*]

1464. *Bristowe on Death from Cerebral Hæmorrhage in Purpura.*—Dr. Bristowe, in the *Medical Times and Gazette*, July 1883, p. 87, contributes some valuable remarks on purpura, and notes two cases in which purpura proved fatal by hæmorrhage into the substance of the brain. Purpura is divided into two varieties—namely, purpura simplex, and purpura hæmorrhagica: but it should never be

forgotten that the distinction is a purely artificial one; that true purpura in all its forms is, as far as we know, the same disease; and that, although the prognosis of a case of purpura simplex is generally favourable, there is always the possibility that it may assume grave proportions; that it may be attended with anæmia and debility, and prove fatal by hæmorrhage. Of the pathology of purpura little is known, the rupture of the blood-vessels being probably due to the weakening of the parietes. The treatment is as unsatisfactory as are its causation and pathology. The two cases noted are typical examples of purpura hæmorrhagica, with the additional important feature that death was due to hæmorrhage into the substance of the cerebrum. One occurred in a man, aged 33; the other in a woman, aged 57. [An interesting case of spinal hæmorrhage during the course of a case of purpura is noted by Dr. Eade in the *Brit. Med. Jour.*, October 1881, p. 812. Vide *Medical Digest*, section 57:4.—*Rep.*]

1465. *Coupland on Abdominal Aneurism opening into the Duodenum.*—Dr. Coupland, in the *Med. Times and Gazette*, July 1883, p. 65, reports a case of a labourer, aged 72, who was admitted into Middlesex Hospital in a state of collapse. Under stimulants and warmth he rallied from the state of collapse, but during the first few hours the bowels were twice opened, and on each occasion some black tarry blood was passed. There was no recurrence of this hæmorrhage until just before his death, twelve days later. *Post mortem* examination showed the stomach to be full of a dark brownish-black fluid; the mucous membrane was intact. The duodenum contained a similar fluid distinctly blood-stained. Thrusting forward the duodenum and head of the pancreas, a globular tumour about the size of an orange could be felt. On laying open the duodenum, four small openings were seen in its inner wall. The tumour and aorta were removed together with the duodenum *in situ*. On laying open the aorta from behind, the orifice of the sac of an aneurism was found immediately below the origin of the renal arteries. During life, the diagnosis between aneurism and tumour of the pancreas was hard to establish.

1466. *Chevers on Cholera Asiatica Maligna.*—Dr. Chevers, in the *Med. Times and Gazette*, Sept. 1883, contributes some notes on cholera Asiatica maligna. The author says: 'If we accept the opinion that cholera is a pernicious fever, we must not expect to find that it is either contagious, as small-pox is, or that it is propagated from individual to individual, as a specific poison, as syphilis is.' Notwithstanding numerous instances where cholera has been traced to water contaminated with rice-water stools, the author remarks that 'No one has proved to my satisfaction that cholera-stools contain a specific poison capable of propagating cholera to those who swallow it.' Dr. Chevers states that nearly all Indian authorities, who believe that cholera is communicable by the dejecta, judge from their experience of epidemic cholera in the North-Western Provinces, whereas nearly all who have long worked in Lower Bengal—the fixed endemic area of cholera—doubt that this disease is at all communicable from man to man. At p. 260 Dr. Chevers continues his remarks, and furnishes some data based upon facts. 1. If a strong epidemic wave rise among us, its destructive effects will not be wholly avoidable. 2. Whatever treatment may be adopted, a very large percentage of those first attacked will probably die. 3. In cholera outbreaks, he who enters the epidemic or endemic area encounters special danger. 4. The incidence of cholera will always be heaviest upon the most unsanitary localities. 5. It is dangerous to travel in the cholera area. Those who are well lodged and in comfortable circumstances have a great prospect of escape if they remain at home. 6. Whenever cholera attacks a barrack or gaol, the surest means of staying the pest is to remove those who are still well to a judiciously chosen camping-ground.

1467. *Blanc on Malarious Cholera.*—Dr. Blanc, in the *Lancet*, Aug. 1883, pp. 228, 271, asserts that pernicious malarious fevers have not received in this country the attention they deserve. They are essentially of the intermittent type, leaving during the intermission some stray symptoms of the pernicious attack, sufficient in most cases to greatly obscure the diagnosis. Malarious fever prevailed to a great extent at the Yerrowda Central Gaol during 1875. From April 1875 to March 1876 there were 1,653 cases of intermittent fever, 93 of remittent fever, and 10 of pernicious fever. The ten cases consisted of one apoplectic, one tetanic, two congestive, and six choleraic. A detailed account of these six cases is given; five recovered, one died. Dr. Blanc looks upon a moderately enlarged spleen as a favourable symptom in cases of malarious fever, having seldom met with this condition in remittent, or in pernicious fevers.

1468. *Wortabet on Another Epidemic of Trichinosis near the Sources of the Jordan.*—Dr. Wortabet, in the *Lancet*, Aug. 1883, p. 183, refers to a paper which appeared in the *Lancet*, March 19, 1881, in which he gave an account of an outbreak of trichinosis from eating the flesh of a wild boar, near the sources of the Jordan. A similar outbreak is detailed in the paper of Aug. 1883. Though forty or fifty people were attacked, none died. The flesh is always eaten in a raw or imperfectly cooked condition. In Syria the wild boar in winter is a delicacy; but, unless previously examined with the microscope, according to German law, or cooked more thoroughly than is usually done, its use cannot be free from the danger of communicating trichinæ to man.

1469. *Whittle on a Case of Diabetes: Death thirty hours after Visit.*—Sharing in the general sympathy which the harsh censure of Dr. Blades has evoked from the profession, Dr. Whittle, in the *Lancet*, Sept. 1883, p. 368, reports the following case. He was called to see a man, aged about 35, who was found lying helpless in bed; he was spare, but not emaciated; the hands and feet were cold and cyanosed; breathing was laborious, rapid, and deep; he could answer questions slowly; the pupils were equal, and there was no paralysis. The heart and lungs were healthy; the tongue was dry and brown; the throat was dusky red, with a vesicular eruption on the soft palate. Pulse, 140; temperature, 97°·8. The urine was not saved, but was reported to be healthy in appearance. There was neither œdema nor anæmia. The case was diagnosed as one of diabetic dyspnœa, running rapidly to a fatal issue. The patient soon became unconscious, passed his urine in bed, and died thirty hours after the first visit. After death some urine was drawn off, and was found to contain albumen and sugar in abundance.

1470. *Thin on a Peculiar Disease of Hot Climates.*—Dr. George Thin, in the *Practitioner*, September 1883, p. 169, records a short notice of a peculiar disease which prevails amongst the foreign residents

in many of the Chinese ports, and southwards towards the Straits Peninsula. The local name given to the disease is 'sprew.' The author terms it 'psilosis linguæ'—'psilosis mucosæ intestini.' The term psilosis is proposed as expressive of a constant feature of the complaint, the bareness or rawness of the mucous membrane. The first stage of the disease is recognised by the patient complaining of loose watery motions in the early morning. The diarrhœa is painless. The discharge consists of thin, watery, straw-coloured fluid. The diarrhœa ceases with the morning hours, and in the evening the patient feels quite well, the symptoms again renewing themselves in the early morning of the following day. This state of things may continue for some months, and soon a condition of general debility ensues. In the second stage various dyspeptic symptoms manifest themselves, and in the third or fatal stage the symptoms of marasmus are marked. Patients living in England are liable to have severe recurrences both of the condition of the intestinal mucous membrane and of the raw state of the tongue when the weather becomes damp and cold. Little is known of the pathology of this complaint. Dr. Thin has never known it to occur in persons who have not been out of England, but only in those who have been in malarial countries. With regard to treatment, regulated diet is essential, and milk diet only is often necessary. Astringents and opiates are useless. The administration of Epsom salts and rhubarb is useful by producing the secretion of bile. [But little has been written upon this disease by English writers. In Holland, it is too well known among the previous residents of Java. In the *Brit. Med. Journ.* and also in the *Med. Times and Gazette* of 1881 some interesting remarks by Drs. Fayrer and Manson are to be found.—*Vide Medical Digest*, 913 : 4.—*Rep.*]

1471. *Austin on Acute Rheumatism as a Premonitory Symptom of Phthisis.*—Dr. Austin, in the *Lancet*, July 1883, p. 10, says that within the last few years he has had four cases of phthisis, in which the more decided pulmonary symptoms had been immediately preceded by the ordinary symptoms of acute rheumatism. A brief sketch of the four cases is given. All the subjects were young females, whose ages ranged from seventeen to twenty-four. A point worthy of notice is the fatal nature of the cases; two have proved fatal, the third is hopeless, and the fourth has not a favourable prognosis.

1472. *Mallins on Jaundice from an Ascaris in the Biliary Duct.*—Mr. Mallins, in the *Lancet*, June 1883, p. 1123, reports the case of an Indian officer, who was attacked with intermittent fever of a very mild type, but accompanied by a great deal of nausea and vomiting, followed in a few days by a decidedly yellow tinge of the conjunctivæ, and a week later by well-marked jaundice. All food taken caused nausea, so that the patient took very little nourishment, and emaciated rapidly; he was ordered to take a change, and decided to return to Europe. Whilst in Bombay, waiting to embark, the patient noticed at stool one day that he had passed a large ascaris lumbricoides, apparently dead, one end of its body to the extent of half an inch being of a deep green colour. The next day, the stools began to exhibit a slight amount of normal bilious hue, and before he arrived in England convalescence was satisfactorily established. The case is remarkable, as it is very probable that the common bile-duct was obstructed by the worm having entered the duct, thus effectually plugging it and preventing the flow of bile. [In the *Medical Digest*, sect. 936 : 4, many cases in which ascaris lumbricoides was found in biliary ducts are noted.—*Rep.*]

1473. *Willcocks on Some Points in the Pathology of Anæmia.*—Dr. Willcocks, in the *Practitioner*, July 1883, contributes some observations on the various fluctuations of the red blood-discs occurring in chlorotic anæmia during treatment by iron. Variations may occur both in number and in colour, but in this complaint one element of the blood is mainly affected, viz., the hæmoglobin, and it is the comparative simplicity of the blood-lesion, as well as its rapid response to chalybeate treatment, that renders this affection an excellent field for hæmometric observation. The author defines chlorosis as a form of anæmia, occurring at the period of menstrual evolution, consisting in the addition to the blood of a large number of young imperfectly-coloured elements, and in consequence the value of the individual corpuscles in hæmoglobin is reduced far below the normal. The absence of any great wasting in chlorosis is usually explained by the fact that the serum remains normal in quality, although its quantity is probably diminished. Notes are given of five typical cases of chlorotic anæmia, with diagrams showing the effect of preparations of iron and arsenic on the number of red blood-corpuscles, and the amount of richness of the blood in hæmoglobin. In two cases arsenic was given with negative results, but in one case it had a most beneficial action. In the *Practitioner*, Aug. 1883, p. 94, the paper is continued, and three cases of intense anæmia are reported. The author enunciates the hypothesis that iron possesses no power of directly stimulating the formation of new corpuscles by any influence on the cytogenic organs, but that it improves the richness of already existing corpuscles in hæmoglobin, and only increases their number indirectly by improving their physiological value and vitality. Iron, therefore, is of little use in cases where the natural power of sanguinification is greatly reduced. Chlorosis is in striking contrast to the most severe forms of anæmia, both as regards its blood-lesion and its response to iron treatment. In chlorosis, the supply of young feebly coloured corpuscles is abundant, and the number of red discs but slightly below the normal. The average amount of hæmoglobin per corpuscle is greatly reduced, and the curative effect of iron is very rapid. On the other hand, in the most intense forms of anæmia, with great diminution in the number of corpuscles, and a high relative value of hæmoglobin, iron is practically useless.

1474. *Neale on Cancer of the Stomach.*—Dr. Richard Neale, in the *Practitioner*, July 1883, records a case illustrating the impossibility of arriving, in some instances, at a positive diagnosis between cancer of the stomach and idiopathic anæmia. The patient was a man aged 61, who for some time had been ailing; he was stout and very anæmic; the cardiac impulse was very weak, and he had extreme dyspnœa on the least exertion; he had no appetite, and had a feeling of uneasiness after eating, and often considerable flatulence. Two or three days after Dr. Neale first saw the patient he was suddenly sent for, as the man had fallen down and was supposed to be dead; a few whiffs of nitrite of amyl soon started respiration, and the patient vomited a quantity of matter like modified red-currant jelly. This drew special attention to the gastric symptoms; and the fact that one of

the patient's brothers had died from intestinal cancer, led to the case being diagnosed as one of malignant disease of the stomach. Three consultants, who saw the case at intervals of two months, considered it to be one of idiopathic anæmia; and for a time the patient improved remarkably in health, returning from the sea-side, after a stay of some weeks, a *new man*. It was then decided that he should reside near the sea, and a house was taken at Worthing; about three weeks after arriving there, hæmatemesis set in, the patient only living a few days. A *post mortem* examination made by Mr. Parish, of Worthing, disclosed a marked case of cancer of the stomach; a large growth occupied the posterior wall of the stomach, encircling the œsophagus, and extending to the pylorus. The growth was very soft, and infiltrated the muscles of the back; it was adherent to, but did not implicate, the spleen.

RICHARD NEALE, M.D.

1475. *Roberts on the Diagnosis of Perinephritic Abscess.*—In a paper on perinephritic abscess (*Amer. Jour. Med. Sci.*, April 1883), Dr. J. B. Roberts gives a tabular statement of symptoms to assist in the localisation of the disease, and its diagnosis. *All anterior regions.* — Pain, tenderness, swelling, œdema, and pointing in front and side of abdomen. *All posterior regions.*—Pain, tenderness, swelling, œdema, and pointing in loin. *Upper tracts.*—Pleuritic friction, pleural effusion, empyema, expectoration of pus; dyspnœa; suprarenal involvement; solar plexus involvement (on right side.) Bilateral œdema of legs; jaundice; fatty stools; persistent vomiting; rapid emaciation; ascites. *Middle tracts.*—Albuminuria and casts; suprapubic, scrotal, or vulvar pain or anæsthesia; suppression of urine; uræmia; pus in the urine; œdema of scrotum or varicocele (especially in left side). *Lower tracts.*—Flexion of hip; pain or anæsthesia of front, inside, or outside of thigh; retraction of testicle; pain at knee; scrotal or vulvar pain or anæsthesia, without accompanying albuminuria; unilateral œdema of legs; abscess of sinus near Poupart's ligament; constipation (if left side); involvement of chyle receptacle (if right side.)

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1476. RAIMONDI.—Naphthaline as an Antiseptic. (*Rivista di Chim. Med. e Farm.*)

1477. FERRER.—Alcohol in Trichinosis. (*Gaceta de los Hospitales.*)

1478. AGUILAR Y LARA.—Kairina and Kairolina. (*Rev. di Med. y Cirurgia Practica*, July 7, 1883.)

1479. BRUGNATELLI.—Treatment of Pneumonia by Cold Baths. (*Gazz. Med. Ital. Prov. Venete*, Sept. 22, 1883.)

1480. Queirolo, G. B.—The Action of Pilocarpine on the Heart. (*Italia Medica*, June 1883.)

1481. BIANCHI, R.—The Milk of the Bitch as a Therapeutic Agent. (*La Union de las Ciencias Medicas.*)

1482. CASARINI.—Perchloride of Iron in Diseases of the Skin. (*Lo Spallanzani.*)

1483. VIGAR, M.—Salicylate of Soda in Phlegmasia Alba Dolens. (*La Correspondencia Medica.*)

1484. GUTTMANN.—The Antifebrile Action of Kairin. (*Berliner Klin. Wochensch.*, July 30.)

1485. ZABLUDOWSKI.—The Physiological Influence of Massage. (*Centralbl. für die Med. Wiss.*, April 7.)

1486. EULENBERG.—Faradaic and Galvanic Baths. (*Deutsche Med. Wochensch.*, April 25.)

1487. KEMPNER.—Arsenic as a Prophylactic against Infectious Diseases. (*Wien Med. Blätter*, August 2.)

1488. FREYMUTH AND POELCHEN.—Kairin in Recurrent Fever. (*Deutsche Med. Wochensch.*, 1883.)

1489. BOEGEHOLD.—The Treatment of Acute Vesical Catarrh. (*Deutsche Med. Wochensch.*, August 29.)

1490. LUDWIG.—On Kairin. (*Wiener Med. Blätter*, April 12.)

1491. HARE.—Good Remedies out of Fashion. (*Brit. Med. Jour.*, July, p. 151.)

1492. RINGER AND SAINSBURY.—The Physiological Action of Barium Chloride. (*Brit. Med. Jour.*, August, p. 265.)

1493. TAYLOR.—A New Method of Treatment in Cholera. (*Brit. Med. Jour.*, July, p. 69.)

1494. LITHGOW.—Cascara Sagrada in Constipation. (*Brit. Med. Jour.*, July, p. 68.)

1495. PHILLIPS.—The Treatment of Hay-fever. (*Brit. Med. Jour.*, July, p. 69.)

1496. COOK.—Influence of Benzoates of Alkalies on the Excretion of Uric Acid. (*Brit. Med. Jour.*, July, p. 9.)

1497. BOYCE.—Galium Aparine for the Relief of Cancer. (*Brit. Med. Jour.*, July, p. 14.)

1498. MURRAY.—The Treatment of Cholera. (*Lancet*, July, p. 161.)

1499. LOWNDS.—Feeding of Patients in Cholera Collapse. (*Lancet*, July, p. 123.)

1500. JENNINGS.—Intravenous Injections of Saline Fluids in Cholera. (*Lancet*, July, p. 125.)

1501. NICHOLSON.—Turpentine in Secondary Syphilis and in Phagedænic Sores following Fever. (*Med. Times and Gazette*, Sept. 1883, p. 234.)

1502. ALLAN.—Milk-diet in Enteric Fever. (*Lancet*, August, p. 302.)

1503. Chloride of Lead as a Disinfectant. (*Ibid.*, August, p. 245.)

1504. GIBBES, MURRAY.—The Treatment of Diphtheria by Blue Gum Steam. (*Ibid.*, Aug. 1883, p. 362.)

1505. CUTTER. — The Therapeutics of Hot Water Drinking. (*Ibid.*, Sept. 1883, p. 454.)

1506. TUSON.—Sulphur Fumigation in Cholera Districts. (*Ibid.*, Sept. 1883, p. 521.)

1507. EDWARDS.—Sulpho-carbolate of Soda in Bee-stings. (*Ibid.*, September, p. 528.)

1508. VINCENT.—Morphia for Sea-sickness. (*Brit. Med. Jour.*, August, p. 323.)

1509. BAUGH.—Spiræa Ulmaria in Vesical and Prostatic Spasms. (*Canada Lancet*, and *Edin. Med. Jour.*, July.)

1510. CULLEN.—Cereus Bonplandii. (*Virginia Med. Monthly*, and *Edin. Med. Jour.*, July.)

1511. NELSON.—Veratrum Viride in Typhoid Fever. (*Archives of Med.*, April.)

1512. CHVOSTEK.—The Treatment of Basedow's (Graves's) Disease. (*Centralbl. für Klin. Med.*, June 23.)

1513. GOODELL.—Iron Lemonade. (*American Practitioner.*)

1514. GOODELL.—The Treatment of Pelvic Peritonitis. (*New York Med. Times*, August 28.)

ART. 1476. *Raimondi on Naphthaline as an Antiseptic.*—Dr. C. Raimondi (*Rivista di Chimica Medica e Farmaceutica*) reviews at some length the therapeutic value of naphthaline as an antiseptic agent. After describing its physical and chemical properties, he points out that it has a strong affinity to benzole, inasmuch as it belongs to the 'C_nH_{2n-12}' series, naphthaline indeed being isomeric, with a double molecule of benzole minus H_2, thus—benzole $2(C_6H_6) - H_2 =$ naphthaline ($C_{12}H_{22}$). Naph-

thaline appears to have been used as far back as 1842, when it was recommended by Dupasquier (*Jour. de Pharm. et de Chimie*) as an expectorant, and externally as a stimulant application; its antiseptic properties were first studied by Dr. E. Fischer (*Berliner Klin. Wochensch.*, 1881) in the course of his investigations on the action of the vapours of different hydrocarbons on bacteria, &c. He found that naphthaline, applied to the skin or to the surface of wounds, was wholly innocuous, while it was quite efficient as a Listerian dressing. Applied in the form of powder to wounds or to foul ulcers, it renders them aseptic, or prevents septic changes; it is non-irritant and non-absorbable, so that no toxic effects can result from its use, as in the case of carbolic acid. The practical experience of its action was gained in the clinic and policlinic of Prof. Lucke at Strasburg, not only by Dr. Fischer but by Dr. Bonning, who published his results (*Ueber die Wundbehandlung mit Naphtalin*, Strasburg, 1883). The advantages claimed for this substance seem to be, its cheapness, a kilogramme of pure naphthaline costing in Kehl 1fr. 25c.; its absolute harmlessness, and the ease with which it can be applied as a powder to any surface or into any cavity. In surgical dressings for children, and in cases complicated by nephritis, it is stated to be especially useful, especially where large surfaces are concerned, for there is no risk of carboluria. It is not, however, alleged that it can supersede carbolic acid preparations on all occasions. Being insoluble, it cannot be used to disinfect the hands or instruments during an operation; and Dr. Raimondi advises that in operation cases its employment should be preceded by a thorough antiseptic dressing with carbolic acid. Its insolubility is stated to be its only drawback, for its odour, though not precisely agreeable, can, nevertheless, be soon tolerated without inconvenience. Finally, as a general disinfectant, for which absolute purity of the material is not essential, it may usefully be sprinkled about, in hospitals and elsewhere, and for this purpose a still cheaper kind may be used.

1477. *Ferrer on Alcohol in Trichinosis.*—A case of trichinosis, in which the only treatment was the administration of alcohol in full doses, is reported by Dr. D. Vincente Ferrer (*Gaceta de los Hospitales*, Valencia). The patient was twenty-three years old, and it was probably the fifth week of the attack when the treatment was commenced. The attack was a severe one, with characteristic pulse, temperature, muscular pains, and rigidity; pulse, 124; temperature, 103° Fahr. The patient could neither flex the limbs nor stir from the supine position, and was considered by Dr. Ferrer and his colleagues to be in a critical condition. Six ounces of proof spirit (about 56 per cent. of rectified alcohol, R.) were given daily in sugared water in the intervals of feeding. Within twenty-four hours the temperature fell 8°, and the muscular rigidity was distinctly diminished. On the third day of the treatment the dose was increased to nine ounces, and on the fourth to twelve; but this quantity was not borne well, and it was reduced again to nine. On the sixth day, the patient was free from pain as he lay in bed, and could move some of the limbs without suffering. The alcohol was continued in the same doses, and from this date convalescence was established. He is stated to have been quite well eighteen days after the alcohol treatment was commenced. Dr. Ferrer considers that the effect was too marked and immediate to be simply a coincidence, but he offers no opinion as to whether the drug affected the trichina, or the muscular fibres, or the reflex irritability of the nerves, or, finally, the areas of inflammatory intermuscular tissue. WALTER PYE.

1478. *Aguilar y Lara on Kairina and Kairolina.* Dr. Aguilar y Lara reports four cases treated with these new antipyretics. 1. The first case was one of acute pneumonia *à frigore*, seen in the first stage, with the temperature 39°·5 C. (103°·1 F.); fifty centigrammes were administered in a wafer, the patient afterwards drinking copiously to dilute the medicine and to prevent its local action. After twenty-five minutes free sweating began, and after one hour the temperature had descended to 38°·4 C. (101°·1 F.). The medicine was continued every hour and a half. The thermometer on the following day marked 37°·5 C. (99°·5 F.), and the patient was much better. 2. A woman, whose general conditions were not very satisfactory, had pneumonia in the second stage with low delirium; temperature, 39°·9 C. (103°·8 F.). One gramme was administered every three hours. On the visit in the afternoon the temperature had descended to 38°·6 C. (101°·5 F.), and the delirium had disappeared. On the following morning the temperature had descended again to 39°·5 (103°·1), and the delirium had reappeared. Kairoline was then administered in the dose of 2 grammes (30 grains). On the next day the improvement was marked, and in eight days the patient was fairly convalescent. 3. Quotidian intermittent fever, which had lasted for a month in a woman, disappeared completely after two doses in the second stage of the fever. 4. Intense catarrhal fever (temperature 38°·5 C. = 101°·3 F.) in a man was treated by kairina with equally good result.

1479. *Brugnatelli on the Treatment of Pneumonia by Cold Baths.*—Brugnatelli reports eleven cases successfully treated by this method (*Rev. Med. dell' Istituto Lombard.*, July 1883). The patients bear the cold bath well; on immersion in water of 23° to 19° C. (73°·4 to 66°·2 F.) they experience a slight shiver, which soon passes off. These low temperatures are better borne when the patient is placed at once in the cold water, than when the water is gradually cooled down after his immersion. The pulse generally becomes slow and small; respiration is sometimes unaffected, sometimes hurried, more frequently diminished and deeper. The temperature often falls several degrees, and this fall lasts for some time. The general state is sensibly improved, the patient is much more calm, and generally sleeps for several hours. The bath seems to exercise a beneficent influence on the disease. In seven cases, the fever disappeared and resolution began on the sixth day, in two on the seventh. The bath probably hastens resolution in the lung. Contraction of the superficial vessels causes increased pressure in the deep vessels, while at the same time the heart is stimulated.

1480. *Quirolo on the Action of Pilocarpine on the Heart.*—The author draws his conclusions from graphic tracings and from the results of experiments on the arterial pressure, made by means of the apparatus of Basch. A few minutes after the hypodermic injection of pilocarpine, almost before the physiological effects show themselves, the ascending line is markedly raised; the intra-arterial pressure is at the same time lowered: the frequency of the pulse increases; after an interval of time, varying from one to two hours, the graphic ascending line descends below the height it had before the injec-

Award of Merit—International Medical Exhibition, London, 1881.

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MALTINE with Peptones
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Drs. William Roberts and J. Milner-Fothergill recommend Maltine to be mixed with the food, or taken during the meal, to get the best effects of the digestive principle, Diastase.—*Practitioner,* January 1881.

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tion; at the same time the intra-arterial pressure is extraordinarily lowered, reaching the lowest figures of the apparatus. Pilocarpine must therefore be used with great caution in cardiac affections, as well as in diphtheria and acute diseases when the tendency is to adynamia.

1481. *Bianchi on the Milk of the Bitch as a Therapeutic Agent.*—After treating of rickets and its causes and of the inefficacy of the treatment usually employed, Dr. Bianchi (*La Union de las Ciencias Medicas*, of Carthagena) recommends the employment of the milk of the bitch as an article of diet. Its use is justified theoretically and practically. After a comparative study of this milk and that of other animals he finds that it is much richer in nutritive materials and in sulphate of lime, which is entirely assimilated; hence it is especially valuable in rickets and tuberculosis. He has obtained striking results from its use. The great drawback to its employment is the difficulty of obtaining it in sufficient quantity.

1482. *Casarini on Perchloride of Iron in Diseases of the Skin.*—Dr. Casarini says that the local employment of the perchloride of iron is very useful in some chronic diseases of the skin either in the form of ointment, 1 to 3 parts to 30 of butter, or as a lotion, 1 part to 2 or 3 of water. It is of most use in subacute and chronic psoriasis, eczematous lichen, and eczema. In simple and hæmorrhagic purpura it is very efficacious, and in scrofulous and syphilitic ulcers.

1483. *Vigar on Salicylate of Soda in Phlegmasia Alba Dolens.*—D. Miguel Vigar (*La Correspondencia Medica*) says that of four cases of phlegmasia alba dolens which he has had occasion to treat, in the first with the topical remedies usually employed he obtained no result attributable to the medication, since the patient remained in bed two months; and that in the other three having employed the salicylate of soda, in the dose of 4 grammes (60 grains) a day, he noticed in all from the first day of taking the medicine notable diminution of the fever and œdema. Neither of these patients passed more than twenty-one days in bed, and no œdema, nodosities, or thickening of the lower limb remained.

G. D'ARCY ADAMS, M.D.

1484. *Guttmann on the Antifebrile Action of Kairin.*—Dr. Paul Guttmann (*Berliner Klin. Wochensch.*, July 30) has, at considerable length, given the results of a series of observations on the influence of kairin upon patients suffering under various febrile affections. The number of patients was forty-two, including cases of pneumonia, measles, phthisis, typhus, scarlet fever, pleurisy, peritonitis, erysipelas, ague, and septicæmia. The kairin was administered daily, from morning until evening, in hourly or half-hourly doses of half a gramme to one gramme each. The temperature was taken, both in the axilla and in the rectum, half-hourly. In about three or four hours the temperature was reduced to a normal degree, but rose again on the withdrawal of the medicine, the effects of which soon passed off. Perspiration, more or less profuse, was induced. Simultaneously with the fall in temperature was a reduction in the force and frequency of the pulse. The urine became of a dark green or black colour, which lasted for about thirty-six hours. The effect of kairin passes off rapidly, leaving the disease unaltered.

1485. *Zabludowski on the Physiological Influence of Massage* (*Shampooing*).—Dr. Zabludowski, of Berlin (*Centralbl. für die Med. Wiss.*, April 7), in November 1881, during twenty days, made observations upon the effects of massage as practised on three healthy individuals, viz., himself, 30 years of age; his servant, aged 20; and his housekeeper, aged 47. All were under the same circumstances as to food and dwelling. For two weeks previously, note had been made that the same quantities of nitrogenous substances taken had been maintained. During eight days a careful record was kept of the weight of the body, the muscular power, the bodily temperature (of rectum and axilla), the frequency of the pulse and respiration, the quantity and quality of the urine, and the daily number of stools. During the first eight days the observations were made without massage; then from ten days with, and lastly, for eight days again without massage. In all the cases, muscular power was augmented. The regularity of action of the intestines was also promoted. Appetite was increased, bodily and mental vigour were increased, and sound refreshing sleep was induced. Comparative experiments on lower animals at the Physiological Institute were attended with very similar results.—[The results of the observations by Dr. Weir Mitchell, of Philadelphia, have been to show increase of muscular power and of vigour of the circulation from massage, skilfully employed. Several cases also of the benefits to be derived from this treatment in functional neurasthenia are related by Dr. Beresford Ryley in the *Lancet*, June 2.—*Rep.*]

W. B. KESTEVEN, M.D.

1486. *Eulenberg on Faradaic and Galvanic Baths.* At a meeting of the Berlin Medical Society (*Deutsche Med. Wochensch.*, April 25) Herr Eulenberg spoke on the action of faradaic and galvanic baths. There is a considerable difference between the two in certain respects. Faradaic baths diminish the sensibility of all parts of the body, even of those parts which are not under water. The same is the case in galvanic baths, when the cathode is in the water, and the patient holds the anode, but sensibility is increased when their positions are reversed. The sense of touch is increased in both forms; the sense of locality in faradaic baths, and in those parts of the body which are immersed in galvanic baths; those parts out of the water in galvanic baths presenting a diminished sense of locality. The pulse is retarded in both baths, respiration is unaffected, and the temperature falls 0·2 to 0·4 C. Motility was found to be diminished in galvanic baths, and contractions could be induced only by very strong currents. From his experiments, Herr Eulenberg draws the conclusion that faradaic baths are useful as a stimulant to the skin, and that galvanic baths (cathode in the water) may be used where a diminution of motility or sensibility is desired, as in cholera or neuralgia. He made all his experiments with one pole in the water, while the patient held the other; and he found that the intensity of the results varied with the distance of the pole from the body of the patient.

1487. *Kempner on Arsenic as a Prophylactic against Infectious Diseases.*—In consequence of the publication of Buchner's pamphlet, recommending arsenic as a prophylactic against infectious diseases (LONDON MEDICAL RECORD, July 1883), Dr. Kempner has made some experiments with the administration of arsenic to phthisical subjects (*Wiener Med. Blätter*, Aug. 2). He has given it to the amount of one centigramme (⅙ gr.) a day, in five doses, this amount being reached gradually, and he finds that it greatly

improves the subjective symptoms, having a markedly good influence on the appetite. Neither the cough nor the expectoration is influenced with any degree of regularity, and the sweating does not diminish so rapidly as under the use of atropine; but the patients do not lose in weight during the use of the drug, and some have gained considerably.

1488. *Freymuth and Poelchen on Kairin in Recurrent Fever.*—Drs. Freymuth and Poelchen, in concluding a report on the action of kairin in recurrent fever, which has appeared in several numbers of the *Deutsche Med. Wochensch.*, give it as the result of their experience that kairin administered during the attack lowers the temperature, but has no influence on the spirilla, which go on developing unaffected by it. In the intervals, however, it seems to have an effect on what may be shortly termed the spores, and the next attack is either prevented or rendered much milder in character, with very few spirilla. If the micro-organism of other diseases is affected in the same way, kairin or a similar substance will serve only as a prophylaxis in germ fevers, and not as a cure when they are once established. It will be of more service, the more marked the stage of invasion happens to be.

1489. *Boegehold on the Treatment of Acute Vesical Catarrh.*—Dr. Boegehold, of Berlin, communicates a paper to the *Deutsche Med. Wochensch.* of Aug. 29, on the treatment of acute vesical catarrh. In cases where chlorate of potash has been of no avail, he has found salicylic acid and salicylate of soda to effect a cure. He discovered this treatment accidentally during the course of a case of articular rheumatism, complicated by catarrh of the bladder, the result of the same chill, and he has since proved it in other cases. He is inclined to think that salicylic acid is as much a specific for rheumatic and gonorrhœal catarrh as for articular rheumatism.

1490. *Ludwig on Kairin.*—In an article on kairin (*Wiener Med. Blätter*, April 12), Dr. Ludwig, of Vienna, after mentioning some details of its discovery and preparation, gives some of his experiences in determining its nature, and in investigating its behaviour in the body. He finds that only a very small quantity is recovered unchanged from the urine; that the urine of patients taking kairin is never albuminous, but that a large number of bacteria have been present in all the cases which he has investigated, very soon after it has been passed, showing that kairin must in some way supply favourable conditions for their development.

ALICE KER, M.D.

1491. *Hare on Good Remedies out of Fashion.*—Dr. Hare, in an address delivered before the Metropolitan Counties Branch of the British Medical Association (*Brit. Med. Jour.*, July 1883, p. 151), recalls some of the old-fashioned modes of treatment, and asks the younger members of the profession to consider carefully some of them, before they decide to discard them altogether. Dr. Hare remarks that he has lived to see the fulfilment of his statement, that the pendulum of public opinion on the question of alcoholic stimulants would swing in an opposite direction. Twenty-five years ago the use of alcohol was rampant; now it is giving way to the more rational plan of supplying nourishment in the form of milk. The administration of an emetic, in days gone by, was the commencement of treatment in many diseases, but now most avoid giving an emetic, fearing the depression produced by it, which, says Dr. Hare, is more theoretical than practical. Opium, too, one of the most useful of all remedies in many cases of heart-disease, is never given by many men for reasons also more theoretical than practical. With regard to purgatives, there has not been that extreme variation, but of late years the fashion has been to neglect them far too much. Another remedy, which, though much abused by over-use in olden times, is now suffered to almost die out, is venesection; many cases that nowadays would be benefited by this treatment are allowed to go on untreated, on account of the prejudice against this mode of procedure. Dr. Hare's paper ought to be carefully read by every member of the profession, being a most valuable review of the mode of treatment of disease during the last forty-five years.

1492. *Ringer and Sainsbury on the Physiological Action of Barium Chloride.*—Drs. Ringer and Sainsbury, in the *Brit. Med. Jour.*, Aug. 1883, p. 265, contribute an article on the action of barium chloride; experiments have been also made by Boehm as to the action of this drug which show the systolic heart, the retarded pulse-rate, and the heightened blood-pressure, resulting from the action of barium chloride. Dr. Ringer's results are these. 1. The systolic heart and the retardation occur equally when the centres of reflex control are destroyed. 2. The local application of the salt in diluted solution, to the heart *in situ*, produces local spasm at the point of application; and the excised heart is arrested in full systole by the drug. 3. The vessels freed from the central nervous control respond to the direct action of the salt. 4. They were unable to influence the calibre of the vessels through the nerves apart from direct local action. That there is a marked resemblance in action between barium chloride and digitalis, scarcely needs to be pointed out. The therapeutic value of the drug yet remains to be determined. [Since the value of barium chloride was demonstrated by Dr. Kennedy in 1873, several interesting papers have appeared in the journals that may be read with greater interest after Drs. Ringer and Sainsbury's investigations. Vide *Medical Digest*, sect. 272: 2.—*Rep.*]

1493. *Taylor on a New Method of Treatment in Cholera.*—Mr. H. C. Taylor, in the *Brit. Med. Jour.* July 1883, p. 69, introduces a new treatment, as an adjunct to those generally carried out in cases of cholera. It consists in injecting the active principle of bile, the substance called bilin, into one of the veins of the arm. The salt which forms the best means of introducing bilin into the blood is taurocholate of soda. Taurocholate of soda is prepared by submitting a solution of taurocholic acid (bilin), to the action of carbonate of soda. The quantity introduced in twenty-four hours should be 100 grammes, dissolved in a litre of water at the temperature of the blood; that quantity corresponds to the bile usually secreted by the liver.

1494. *Lithgow on Cascara Sagrada in Constipation.*—Dr. Douglas Lithgow, in the *Brit. Med. Jour.*, July 1883, p. 68, writes to say that he has found cascara sagrada a most valuable drug. It seems to act as a tonic to the pneumogastric and sympathetic supplies of the primæ viæ, aiding the general processes of digestion, whilst it especially promotes those of nutrition and assimilation. In cases of chronic constipation, associated with hæmorrhoids, cascara sagrada is of especial service; it seems to exercise a soothing effect upon the rectal

mucous membrane. Small doses, frequently repeated, act better than large doses.

1495. *Phillips on the Treatment of Hay-Fever.*—Mr. W. F. Phillips, in the *Brit. Med. Jour.*, July 1883, p. 69, recommends the use of belladonna in the treatment of hay-fever. The following prescription is given: ℞. Succi belladonnæ ℥xxiv., aquam ad ʒiij. A teaspoonful to be taken every hour till relief is obtained. In cases where the eyelids are especially tender, the patient can use the mixture as a lotion to the affected parts, and will find great relief.

1496. *Cook on the Influence of Benzoates of Alkalies on the Excretion of Uric Acid.*—Mr. Alleyne Cook, in the *Brit. Med. Jour.*, July 1883, p. 9, records some experiments he made on the influence of benzoates on the excretion of uric acid, and comes to conclusions different from those of Dr. Garrod, published in the *Journal*, April 1883. Mr. Cook found that the excretion of uric acid was not lessened, but that the presence of a benzoate, or even of benzoic acid, can prevent the crystallisation of uric acid from urine, and does not destroy it.

1497. *Boyce on Galium Aparine for the Relief of Cancer.*—Mr. Boyce, in the *Brit. Med. Jour.*, July 1883, p. 14, refers to Dr. Quinlan's paper in the *Journal* of June 16 on the use of galium aparine in the treatment of chronic ulcers. Mr. Boyce says that it is also used with great benefit in some parts of England in cases of mammary cancer; it has the reputation of reducing the size and diminishing the pain of the cancer, and also arrests the ulcerative action.—[Many years ago, Dr. Winn recommended galium in the treatment of cancer.—*Rep.*]

1498. *Murray on the Treatment of Cholera*—Dr. J. Murray, in the *Lancet*, July 1883, p. 161, recommends the use of the following prescription in the treatment of cholera: one drachm and a half of hydrate of chloral, one drachm and a half of bicarbonate of soda, one ounce of compound camphor tincture, half a drachm of tincture of capsicum, half a drachm of hydrocyanic acid, water to eight ounces; one tablespoonful to be given immediately on seeing the case, and a dessertspoonful every fifteen to thirty minutes afterwards. For the board-like feeling of the muscles during cramp, flannels wrung out of warm water, and sprinkled with strong solution of hydrate of chloral, should be applied to the abdomen, over the kidneys, legs, and hands, with such adjuncts as might be thought useful. [Very satisfactory results are asserted to have been produced by the use of chloral hypodermically, so much so that in sect. 928:6 of the *Medical Digest* may be seen a very strong recommendation to 'try it.'—*Rep.*]

1499. *Lowndes on Feeding of Patients in Cholera Collapse.*—Dr. Lownds, in the *Lancet*, July 1883, p. 123, brings before the profession a form of nourishment which may be absorbed by the physical action of osmosis, during the collapse stage of cholera. The mode in which it is prepared is as follows. Mix eight ounces of recently killed meat, chopped fine, with eighteen ounces of distilled water, to which have been added four drops of pure hydrochloric acid, and from half to a drachm of common salt. Stir with a stick, and after half an hour throw on a hair sieve. The red soup thus obtained, given in doses of an ounce every half hour, has proved most beneficial in many outbreaks of cholera.

1500. *Jennings on the Intravenous Injection of Saline Fluids for Cholera.*—Dr Jennings, in the *Lancet*, July 1883, p. 125, draws attention to the practice of injecting saline solutions into the veins of cholera patients. Reference is made to the results obtained by Dr. Little many years ago, and also to a case in which Sir Spencer Wells and Mr. Bennett injected a saline solution into the veins of a man apparently dead, the operation being followed by a return of pulsation, warmth, and consciousness, which lasted some hours, but the patient eventually died. [To those interested in the subject, a reference to sect. 923:3 of the *Medical Digest* will afford a fund of information upon this subject, as well as to all that has been suggested for the treatment of cholera during the last thirty years or more.—*Rep.*]

1501. *Nicholson on Turpentine in Secondary Syphilis and in Phagedænic Sores following Fever.*—Dr. Nicholson, in the *Med. Times and Gazette*, Sept. 1883, p. 234, records a few cases in which he found drachm doses of turpentine a very successful mode of treating syphilitic patches. A case is also recorded of a boy, aged 10, in West Australia, who suffered from continued fever, complicated with two slowly progressing phagedænic sores on the leg. Nothing seemed to do so much good as turpentine taken internally and applied locally.

1502. *Allan on Milk-diet in Enteric Fever.*—Mr. Allan, in the *Lancet*, Aug. 1883, p. 302, in a letter to Professor Gairdner, says that he knows nothing which can take the place of milk in enteric fever. If the patient be very thirsty, the milk must be diluted; and also, if vomiting come on, it indicates that the milk must be used diluted. As to the quantity required daily, Mr. Allan remarks that no fixed amount can be laid down, but is inclined to put the allowance at four pints. [Is not this an excessive quantity?—*Rep.*] At p. 487 a correspondent draws attention to the fact that often, after an exclusive milk-diet for three weeks, or thereabouts, the temperature still remains high without any obvious cause; if, then, all enteric symptoms being absent, the diet be changed to soup or meat, the temperature at once falls.

1503. *Chloride of Lead as a Disinfectant.*—In the *Lancet*, Aug. 1883, p. 245, an article appears on the use of chloride of lead as a disinfectant. It was suggested by the late Dr. Goolden several years ago (vide *Medical Digest*, sect. 292:5). Chloride of zinc, however, is very much cheaper. Each will absorb sulphuretted hydrogen and ammonia, to take two typical gases, and yet neither has any smell of its own. Carbolic acid does not destroy, but only masks foul smells. Lead salts, besides being expensive, are blackened by sulphuretted hydrogen, which is a disadvantage. An objection, however, both to chloride of zinc and chloride of lead is, that neither is volatile, and that, having no odour, they are often taken internally by mistake.

1504. *Gibbes on the Treatment of Diphtheria by Blue Gum Steam.*—Dr. Murray Gibbes in the *Lancet*, Aug. 1883, p. 362, reports thirty-seven cases of diphtheria cured by saturating the atmosphere of the room in which the patient was placed, with the vapour of the eucalyptus globulus. The atmosphere must be constantly loaded with steam, and the vapour of the eucalyptus is obtained by pouring boiling water on the dried leaves. To assist nature in throwing off the membrane, Dr. Gibbes uses a solution of steel and glycerine, with which he brushes the throat, when the membrane is loose enough to come away easily. [Dr. Mosler, in 1879, spoke strongly of the vast value of eucalyptus inhala-

tions in severe cases of diphtheria. Vide *Medical Digest*, sect. 824 : 1.—*Rep.*]

1505. *Cutter on the Therapeutics of Hot Water Drinking.*—Dr. Cutter, in the *Lancet*, Sept. 1883, p. 454, contributes an article on the origin and use of drinking hot water at a temperature of 150° F. The practice dates back to 1858, when Dr. Salisbury, of New York, published a series of experiments on feeding animals to ascertain the relations of food as a cause and cure of disease. The hot water excites normal downward peristalsis of the alimentary canal, and causes the bile to be eliminated by the bowels and not through the blood, by way of the kidneys. One or two hours before each meal, and half an hour before retiring to bed, the water should be sipped, and not drunk too fast. It should be continued daily for about six months, and may be made palatable by flavouring it with ginger, lemon-juice, &c. In many cases of consumption, Bright's disease, diabetes, &c., the improved condition of the patient is very striking. Not less than three pints daily is the allowance ; and the specific gravity of the urine, which ought to be brought to 1,018 or thereabouts, is the guide to the quantity required.

1506. *Tuson on Sulphur Fumigation in Cholera Districts.*—Dr. Tuson, in the *Lancet*, Sept. 1883, p. 521, writes saying that since 1872 he has steadily advocated the plan of disinfection of cholera districts by sulphur fumigation, and credits himself with being the first to initiate this plan of disinfection. In 1882, when cholera was very virulent at Dumdum, sulphur fires were adopted extensively. The disease ceased in a most marvellous manner, and not a single case occurred in the Border Regiment stationed there.

1507. *Edwards on Sulpho-carbolate of Soda in Bee-stings.*—Mr. Edwards, in the *Lancet*, Sept. 1883, p. 528, reports the case of a lady, aged 40, who consulted him for a bee-sting upon the upper part of the forehead. A hot soda bath, a saline aperient, and a lead lotion to be applied on the face were ordered. Next morning the patient was extremely excited, and at times delirious ; the head and neck were enormously swollen ; the upper and lower extremities were cold, stiff, and also much swollen ; pulse almost imperceptible ; breathing laboured. Mr. Edwards administered fifteen grains of the sulpho-carbolate of soda in an ounce of water, and ordered it to be repeated every four hours. After the second dose the swelling and other symptoms diminished rapidly in intensity ; she became bathed in a profuse perspiration, and, with the administration of several more doses, the patient steadily progressed towards convalescence.

1508. *Vincent on Morphia for Sea-sickness.*—Mr. Vincent, in the *Brit. Med. Jour.*, Aug. 1883, p. 323, writes that the hypodermic injection of morphia is almost invariably attended with much benefit to the sufferers from sea-sickness. Dried toast, soaked in strong tea, without sugar or milk, is often retained when everything else has been rejected. Nitrite of amyl and bromide of potassium, Mr. Vincent considers useless. [Morphia has, since Dr. G. Johnson recommended it in 1869, found many advocates. Vide *Medical Digest*, sect. 858 : 3 ; and at page 270 of the *Journal*, the injection of laudanum into the rectum is stated to be a panacea for the evil.—*Rep.*] RICHARD NEALE, M.D.

1509. *Baugh on Spiræa Ulmaria in Vesical and Prostatic Spasms.*—Dr. Baugh, of Hamilton, Canada, writes in the *Canada Lancet* for August 1882 ; *Edin. Med. Jour.*, July 1883, that the use of spiræa ulmaria (queen of the meadow) has given him remarkable results in three cases of senile enlargement of the prostate gland. He was called to see T. B., aged 68, of London, Canada, and found him suffering from retention of urine. Dr. Baugh had him put immediately in the hot hip-bath, the hot water coming well over the pubes, and administered a drachm of paregoric and twenty drops of Hoffman's anodyne every thirty minutes. He remained in the bath about fifteen minutes, when hot wet cloths were applied over the bladder. Nearly two hours elapsed before this treatment had the desired effect. After the bladder had been evacuated, hypertrophy of the prostate was found on examination *per anum*. A No. 10 catheter glided into the bladder without difficulty. Two weeks subsequently, Dr. Baugh was called again to the same patient. The former method of treatment failed, and the catheter could not be introduced. An old woman suggested a dose of queen of the meadow (the common name for *Spiræa ulmaria*), and said that, if the patient could get it, it would cure him quickly. Some was brought, an infusion was made, and half a pint given to the patient ; and in fifteen minutes he desired to micturate, and emptied his bladder without difficulty. Since that time, the patient has needed no medical or surgical aid to rid him of his old enemy. If his old trouble threaten him, he takes queen of the meadow tea and rejoices in being saved. In two other cases of this nature, in which Dr. Baugh used this drug, the results were just as satisfactory. He has tried it on himself in health, and found that it acts as a diuretic and astringent, sometimes causing smarting pain as the urine passes along the urethra. Its antispasmodic properties are very marked on the sphincter vasicæ, and Dr. Baugh thinks that much of its virtue in the affection named results from its power to overcome the contraction of the neck of the bladder arising from irritation in the prostatic region.

1510. *Cullen on Cereus Bonplandii.*—Dr. Cullen (*Virginia Med. Monthly*, and *Edin. Med. Jour.*, July) states that this is one of the many species of cactus, and that he has tried it in several cases of functional heart-disease. One of his cases has been at death's door several times, and has recovered under its use. The symptoms were shortness of breath, inability to lie down, great frequency of pulse, flushing of face, lips and fingers almost stagnant with blood. Having tried digitalis and bromide of potassium without success, he gave the fluid extract of *Cereus Bonplandii* in fifteen-drop doses. In half an hour he repeated the dose. The action of the heart moderated, and from 125 gradually came down to ninety pulsations in the minute, or even less. In two cases there was suppression of urine, which warm baths and acetate of potash failed to relieve ; and in conjunction hair-cap moss was given, half a drachm of the fluid extract at a dose, every two hours. In one case the kidneys commenced acting, and over a gallon of urine passed during the next twenty-four hours. He does not believe the patient would have lived twenty-four hours without the use of the latter remedy. The author believes that this combination is the best where the urine is scanty and albuminous, and drowsiness indicating coma is apparent. The few cases of benefit already have led him to believe that both drugs will be more freely used in similar cases.

1511. *Nelson on Veratrum Viride in Typhoid Fever.*—Dr. A. W. Nelson (*Archives of Med.*,

April) strongly endorses the treatment of typhoid fever by veratrum viride, his observations being based upon twenty-eight successive cases in private practice, all of which recovered. The most obvious beneficial effects were manifested in the reduction of the pulse and temperature, and during this treatment these should be carefully watched. The preparation is the officinal tincture, and the dose is from one to two minims each hour, up to five or more. This is given from the onset of the disease to convalescence. The elimination of the veratrum viride is rather rapid, so that the patients were usually under the influence of from three to twelve drops continuously. Sometimes the medicine was given only every two hours at night. The entire quantity in twenty-four hours would be from twenty to forty-eight drops, and this would be continued for from ten to fourteen days. Dr. Nelson concludes that the use of veratrum viride tends to shorten the duration of typhoid fever, so that many cases terminate at twelve days, some at fourteen or fifteen, a smaller number at three weeks, the results being more definite and satisfactory than under any other plan of treatment.

1512. *Chvostek on the Treatment of Basedow's (Graves's) Disease.*—From an experience in upwards of seventy cases, and fortified by the unanimous observations of Von Dusch, Eulenburg, Meyer, Erb, and others, Dr. Chvostek (*Centralbl. für Klin. Med.*, June 23) is led to regard the rational employment of galvanism as the most important part of the treatment of Basedow's disease. He recommends the following method to be pursued; 1, the ascending constant current applied to the cervical sympathetic, on each side, for at the most one minute; 2, the same to the spinal cord (the anode at about the fifth dorsal spine, the cathode high up in the cervical region); 3, through the occiput (one pole at each mastoid process), and in certain cases also through the temples, a constant current, for, at the longest, one minute, and so weak that the patient can feel but the slightest sensation of burning. Sometimes also local galvanisation of the thyroid gland with a weak constant current is applied for about four minutes, the current being reversed at the end of each minute. The applications should be made every day, if possible. As a rule, very good results were obtained, even in the most severe cases a cure or marked improvement being recorded. In three cases, death resulted from excessive anæmia or from complications.

1513. *Goodell on an Iron Lemonade.*—The effect of prescribing disagreeable medicines, says the *American Practitioner*, for some classes of patients, and especially the roving class which is often met with in hospital practice, is well known. Sometimes an artifice in the shape of a *pleasant* medicine is useful in securing the return of a patient whom it is desired to see again. The following formula for a 'lemonade of iron' prescribed in a case of this kind was recently mentioned in a clinical lecture by Professor Goodell, of Pennsylvania University:—℞ Tincturæ ferri chloridi, ʒij.; acidi phosphorici diluti, ʒvi.; spiritûs limonis, ʒij.; syrupi, ad ʒvi. A dessertspoonful is given in water after meals.

1514. *Goodell on the Treatment of Pelvic Peritonitis.*—Dr. Goodell, in the *New York Med. Times* of Aug. 28, in a clinical lecture on a case of this disease, thus describes his treatment. He advises to lay aside all small doses, and treat the case heroically. In the first place, as much morphia is given as is necessary to relieve the pain, if a hypodermic injection of morphia be chosen at first; but he prefers the use of opium by the rectum. He has never given less than one grain of the aqueous extract of opium. It is a very good plan to add belladonna by the rectum, but it should not be put in the same suppository as the opium. Belladonna is very good for the urinary tenesmus, and it also has effect in lessening the inflammation. The opium must be pushed, but the belladonna cannot. He also gives large doses of quinine, giving in bad cases 10 grains every four hours until the patient is completely cinchonised and is deaf. He next puts a large poultice of flaxseed or corn-meal over the abdomen. If this be covered with India-rubber or a piece of brown paper greased with lard, it will keep moist and warm for twelve or twenty-four hours, for the rubber or greased paper retains the heat, and the temperature in these cases is always elevated, running up to 103° F. or 104° F. in the evening, and down to 101° F. in the morning. After the brunt of the disease has been passed, the use of blisters must be commenced. In this case the worst is passed; the temperature is, he is sure, not under 100° F. He blisters the patient He always uses cantharidal collodion. He paints a blister, for instance, 3 inches by 4 inches, putting on three or four layers, and then at once puts over this a poultice. This is an almost painless way of raising a blister. He has never seen it produce strangury. Now in a case of frank inflammation—such as that produced by a sound, where there is nothing of a concealed character—this treatment will subdue it, but if the peritonitis be produced by sponge-tents the case is a bad one. He is sometimes called in consultation to a case of peritonitis by some of his students, and they tell him—'I am giving quinine just as you direct us. I am giving two grains every three or four hours.' Less than five grains should never be given. Certain nervous symptoms will be found present. The woman will be weak and trembling, ready to burst out crying. In such cases he very often gives large doses of the bromides, from 60 grains to 100 grains in the twenty-four hours. If the cases be treated in this heroic way, they will in the great majority be cured at the very beginning of the disease.

OPHTHALMOLOGY.

RECENT PAPERS.

1515. Simi.—On Purulent Ophthalmia. (*Atti della Assoc. Ottalm. Ital.*, and *Annali Univ. di Med.*, June 1883.)

1516. Angelucci.—Ophthalmometric Researches to determine the Irregular Astigmatism of Conical Cornea. (*Ibid.*, June 1883.)

1517. Guaita.—The Treatment of Ulcerative Keratitis of Infective Origin. (*Ibid.*, June 1883.)

1518. Gradenigo.—Massage in the Treatment of Diseases of the Eye. (*Ibid.*, June 1883.)

1519. Rosmini.—The Treatment of Sympathetic Ophthalmia. (*Ibid.*, June 1883.)

1520. Gradenigo.—Antiseptic Prophylaxis in Operations on the Eye. (*Atti della Assoc. Ottalm. Ital.*, and *Annali Univ. di Med.*, June 1883.)

1521. Hirschberg.—Pigmentation of the Sclerotic and its Pathological Significance. (Gräfe's *Archiv*, Band xxix., and *Centralbl. fur die Med. Wiss.*, July 21.)

1522. Deutschmann.—Blindness from Direct Sunlight. (*Ibid.*, Band xxviii., and *Centralbl. für die Med. Wiss.*, April 28.)

1523. Sakovitch, D.—An Ophthalmologic Note. (*Voenno-Mediz. Jurnal*, 1882, ii., p. 190).—Cases of High Visual Acuity. (*Vratch*, 1883, No. 1, p. 12.)

1524. Szokalski.—A Rare Case of Symblepharon. (*Medycyna*, 1882, No. 9.)

1525. Prevention of Ophthalmia Neonatorum. (*Wien. Med. Blätter*, Aug. 2.)

1526. Ulrich.—Typical Retinitis Pigmentosa, with Congenital Anomalies of the Vitreous Body. (*Klin. Monatsbl. für Augenheilk.*, April.)

1527. Unterharnscheid.—The Treatment of Trachoma of the Conjunctiva. (*Klin. Monatsbl. für Augenheilk.*, February.)

1528. Schadow. The Eyes of the School Children in Borkum. (*Zehender's Klin. Monatsbl. für Augenheilk.*, 1883.)

1529. Schmidt-Rimpler.—The Development of Cataract. (*Zehender's Klin. Monatsbl. für Augenheilk.*, May.)

Art. 1515. *Simi on Purulent Ophthalmia.*—After having compared the most recent methods of treatment, the author comes to these conclusions (*Atti della Assoc. Ottalmol. Ital.*, 1882; *Annali Univ. di Med.*, June 1883). 1. Neither with the method of Dor (tannic acid and benzoate of soda) nor with iodoform, are better results obtained than with the classical treatment with nitrate of silver. 2. Resorcin is the best antiseptic in ocular therapeutics. 3. No treatment can claim to be a specific cure, and none gives better results than those obtained with nitrate of silver. In the discussion which followed the reading of the paper, nothing was advanced to modify these views: it was agreed that nitrate of silver is still the best means that we have to combat the ophthalmic blennorrhœa of infants. Nitrate of silver and plentiful irrigation with distilled water, as Gradenigo advises, are still the best antiseptics, and offer the best hopes of cure. Resorcin, as an auxiliary of treatment, met with much favour.

1516. *Angelucci on the Irregular Astigmatism of Conical Cornea.*—The author, continuing the researches of Raehlmann, adds the following results (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med*, June 1883). 1. In every conical cornea there exists an irregular astigmatism. 2. In the same meridian there are a central, a median, and a peripheral astigmatism; the force of the astigmatism decreases progressively from the centre to the periphery. 3. In the majority of cases, the visual axis does not correspond with the axis of the cornea. The practical aim of the author's researches is to enable us to substitute, in given cases, for the correction of the astigmatism from conical cornea, a system of conical or hyperbolic lenses, the exact scale of which cannot yet be obtained, but which nevertheless would afford the eye a great advantage in acuteness of vision.

1517. *Guaita on the Treatment of Ulcerative Keratitis of Infective Origin.*—Dr. Guaita (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med.*, June 1883), having tried many antiseptics, finds boracic acid the best. Boracic acid in a 3 or 4 per cent. solution was well borne, both as a local application and as spray. The author at the same time made use of an ointment composed of 20 centigrammes of eserine, 1 gramme of boracic acid, and 20 grammes of vaseline. This was especially useful in sluggish ulcers, less in catarrhal and rodent. These last must always be treated by linear incision of the cornea.

1518. *Gradenigo on Rubbing in the Treatment of Diseases of the Eye.*—This subject had been brought before the Congress of Naples by Gradenigo; he again read a paper on it in the meeting of the Ophthalmological Association in Padua (*Atti della Assoc. Ottal. Ital.*; *Annali Univ. di Med.*, June 1883). He considers rubbing, when used intelligently, a very valuable help in treatment. He had at first limited its employment to affections of the lids, but afterwards used it in affections of the eyeball, especially with the scope of diminishing tension. He related the case of a lady in whom, by this mechanical means, he cured a severe attack of exophthalmitis, accompanied by intense pain. He believes, as the result of his observations, that rubbing is useful in diseases of the lids, of the muscles, of the bulb with increased internal tension, and, lastly, in affections of the optic nerve itself in the orbital cavity, and perhaps even when there is effusion into its sheath. By rubbing, the venous circulation of the orbit and globe is favoured, and in this way the beneficial action is exerted.

1519. *Rosmini on the Treatment of Sympathetic Ophthalmitis.*—The author (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med.*, June 1883) is of opinion that sympathetic ophthalmitis is not always due to malignant uveitis, but that often it must be considered as the effect of simple nervous irritation, and that, even without a wound or presence of a foreign body, an affection spontaneously developed in the eye may provoke and maintain, by reflex action only, a sympathetic form. It is often dangerous to delay the enucleation of the bulb. When the patient is opposed to enucleation, he advises iridectomy and extraction of the lens, but even in these cases he has been obliged finally to propose enucleation, which was less advantageous than if it had been done sooner. He concludes that every operation, with the exception of enucleation, aggravates the disease. Contrary to what was sustained at the International Congress in London, he preferred enucleation even in glaucomatous degeneration. In one case, although sclerotomy was performed, and in another neurotomy, he was obliged to perform enucleation.

1520. *Gradenigo on Antiseptic Prophylaxis in Operations on the Eye.*—In a work already published, Professor Gradenigo has treated of this subject, insisting that the best prophylactic and antiseptic treatment is that with simple and copious injection with distilled water before, during, and after, the various operations in the eye and its appendages. In this paper (*Atti della Assoc. Ottalmol. Ital.*, and *Annali Univ. di Med.*, June 1883) he confirms his previous statements with fresh experience and matter, and gives an account of a grave epidemic of follicular conjunctivitis, which attacked over 300 soldiers, cavalry and artillery, in the garrison of Padua. He found that the disease was caused by the dust raised in the grooming and currycombing the horses, irritating the conjunctiva and penetrating its folds. The cases all did well under his method of copious irrigation with distilled water.

G. D'Arcy Adams, M.D.

1521. *Hirschberg on Pigmentation of the Sclerotic, and its Pathological Significance.*—Microscopical pigmentary cells exist normally in the human sclerotic, near the entrance of the optic nerves and the junction of the cornea. Liebreich has observed instances of congenital macroscopic partial pigmentation, to which he has given the name of *cyanosis bulbi*. Prof. Hirschberg (Gräfe's *Archiv*, Band xxix., and *Centralbl. für die Med. Wiss.*, July 21) relates three cases of this condition.

The first example was observed in the right eye of a patient seventeen years of age, having a dark iris; around this dark violet spots were perceptible, without any other change in the eye. In the second case, a female aged thirty-four years, the same dark violet coloured spots around the cornea. These had existed from early childhood, but besides these there was present at the entrance of the optic nerve, on the surface of the retina, a new growth which concealed the papilla optica. This growth occupied the fovea centralis. The third case, that of a female aged fifty-six years, was complicated by an intraocular tumour; the iris was dark, the conjunctiva and sclerotic membranes were the seat of melanosis. The eye-ball was removed, and exhibited a sarcoma from the retina, which was so pigmented that its structure could not be recognised. From the base of the tumour black lines stretched out into the sclerotic coat. Congenital pigmentary discoloration of the skin is known to become melanosis of that structure later in life, as seen in the preceding cases of lesions of the eye, which also evinced the tendency to new growths in later periods of life.

1522. *Deutschmann on Blindness from Direct Sunlight.*—R. Deutschmann, in Gräfe's *Archiv*, Band. xxviii. (*Centralbl. für die Med. Wiss.*, April 28), says, that in four cases, darkness of the centre of the field of vision was produced by a sudden glare of sunlight, the effect gradually diminishing, but never being wholly lost. In all these cases the ophthalmoscope discovered a slight enlargement and alteration in shape of the fovea of the macula lactea, with accumulation of retinal pigment at the site of the fovea and adjacent structure. The affection consisted in a lowering of the acuteness of vision, with a small central spot of positive darkness. The nature of the changes was ascertained by experiments upon animals. Microscopical examination of the eyes of animals recently blinded, made it manifest that the albuminous elements of the retina had become coagulated. At the darkened spot a substance was found in the retina consisting of shining drops, here and there running together into larger groups. In some, the retina had been converted into a more or less structureless mass. Around the central dark spot was a mass of fine and coarse granules. No regeneration of the destroyed retina took place; its place was taken by proliferation of pigment-cells and white blood-corpuscles. The adjacent choroid was marked by widely distended blood-vessels, with small extravasations. From these experiments it was inferred that in man, if the blindness consist in a minimum of coagulation of the retina, it may be gradually repaired, and that hyperæmia of the choroid may contribute towards the reparative changes occurring in the neighbourhood of the lesion. W. B. KESTEVEN, M.D.

1523. *Sakovitch on Cases of High Visual Acuity.*—Dr. D. Sakovitch, senior surgeon of the 14th Malorossiisky Dragoon Regiment, reports (*Voenno-Mediz. Jurnal*, Feb. 1883, and *Vratch*, 1883, No. 1) seventeen cases of visual acuity $=\frac{60}{20}$—*i.e.* V = 3; three cases of $V=\frac{70}{20}=3\frac{1}{2}$; and two cases of $V=\frac{80}{20}=4$. Up to the date the highest visual acuity known in the literature was V = 3. (*See* Dr. Talko's case in the *Kronika Lekarska*, Dec. 20, 1879.)

1524. *Szokalski on a Rare Case of Symblepharon.*—Dr. Szokalski describes (*Medycyna*, 1882, No. 9) a rare case of symblepharon of traumatic origin. A peasant, aged 30, presented what seemed to be ptosis of the right superior eyelid. However, on attempting to lift the latter, there was found a bluish membrane, about three-fourths of an inch in width, binding the posterior edge of the upper lid to the lower part of the conjunctiva of the eyeball. The cornea was completely covered by the membrane, but there was no adhesion, as a probe passed quite freely between them. A stroke of scissors restored the patient's sight. V. IDELSON, M.D.

1525. *Prevention of Ophthalmia Neonatorum.*—In the clinic of Prof. Braun in Vienna (*Wien. Med. Blatter*, Aug. 2), a modification of Credé's treatment for ophthalmia neonatorum has been in use since March 1881. Immediately after birth, before the eyes have opened, if possible, they and the surrounding parts are washed carefully with pure water and antiseptic cotton-wool, and then one or two drops of a 2 per cent. solution of argentic nitrate is dropped into each conjunctival sac. The percentage of cases of ophthalmia has fallen from 5·14 to 1·60, and the number still existing in other clinics of the same hospital shows that the treatment must have the credit of the decrease.

ALICE KER, M.D.

1526. *Ulrich on Typical Retinitis Pigmentosa with Congenital Anomalies of the Vitreous Body.*—Dr. R. Ulrich has described several such cases; two are given in the *Klin. Monatsbl. für Augenheilk.*, April 1883. Case 1. The patient was a boy, aged 12. In the vitreous body of each eye were several exceedingly long, thread-like opacities, which, on movement of the globe, swayed about irregularly and traversed the vitreous body in different directions, but came to rest near the middle of it when the eye was quiet. One of these thread-like opacities in each eye was remarkable for having at one end a peculiar body about the size of a lentil, which seemed to be built nest-like from a number of very fine threads twisted together. From the similarity of the appearance on the two sides and the peculiarity of the opacities, Dr. Ulrich thinks that they were persistent remains of embryonic hyaloid vessels. Case 2. In the vitreous body of each eye of a man aged 32, near the papilla, was a dark opaque body, about the size and shape of a lentil, with exceedingly fine short fibrils proceeding from its border. These processes could not be traced far, on account of their extreme fineness. The author thinks it is probably a calcareous concretion in connection with the hyaloid canal.

1527. *Unterharnscheid on the Treatment of Trachoma of the Conjunctiva.*—Dr. Unterharnscheid (*Klin. Monatsbl. für Augenheilk.*, February 1883) speaks of the unsatisfactory results sometimes obtained in cases of trachoma from the usual treatment. There has constantly been an effort to get better applications for the affected conjunctiva. On account of the theory that trachoma depended for its origin on specific bacteria, an antiseptic treatment was introduced (corrosive sublimate and iodoform). Nitrate of silver, however, besides being antiseptic and astringent, has a special chemical affinity for albumen, and thus prevents the proliferation of the cells. It is especially useful in those cases where the characteristic sago-grain granulations are present in the conjunctiva. Sulphate of copper is also useful as a good astringent, but it has not the chemical power of the last. The acetate of lead has more of the chemical action of the nitrate of silver, as is seen in its action on the cells of malignant tumours. Sulphate of zinc only acts as a good astringent on the vessels. Recently, operative

treatment has come into vogue in this affection in the form of scraping off or excision of the new formation. Cicatrices do not give such trouble after this rough treatment, as might be expected. In stubborn cases, where all ordinary means fail, the author has recourse to galvano-caustic treatment of the papillary granulations. The application is easy; the pain is momentary and not very severe. Between times, nitrate of silver, &c., can be used with advantage. The shrinking and cicatrisation are trifling. He has only used it for the conjunctiva of the upper lid, never for the oculo-palpebral fold. He prefers the galvano-cautery to the ordinary moxa, as he can first lay the cool wire or plate on the part to be cauterised before closing the circuit.

1528. *Schadow on the Eyes of the School Children in Borkum.*—Borkum is a small island off the coast of East Friesland. Its population, almost entirely seafaring, Schadow (*Zehender's Klin. Monatsbl.*, 1883, p. 150) considers fairly representative of the German race. He examined altogether 146 children, from 6 to 14 years of age (a few were slightly under 6), in reference to the refraction and visual acuteness at different ages, and the relation of the visual acuteness to the refraction. There was only 1 myope (5·6 D). Of the others, about one-seventh were emmetropic; the great majority had slight hypermetropia, a few had more than 3 D. The average visual acuteness in children is considerably more than $\frac{20}{20}$ (Snellen). In these cases Schadow found—

1. Vision in both eyes = $\frac{7}{7}$ in 91·8 per cent.
2. Vision of one eye more than 1 in 3·4 per cent.
3. Vision about 1 on one or both sides in 1·4 per cent.
4. Vision less than 1 on both sides, but improved by glasses, in 2 per cent.
5. Vision unimproved by glasses in 1·4 per cent.

The cause of defective vision was generally an error of refraction; in two cases there was probably a central congenital defect; in two there were central corneal opacities. There was less hypermetropia as years advanced. According to Erismann, the eye that remains hypermetropic until the sixteenth year seldom becomes myopic afterwards, and the normal increase in length of the globe occurs chiefly between the ages of 13 and 15. It may be interesting to give the results of different authorities in regard to the percentage of hypermetropia and myopia in children and young adults :—

Cohn.—240 school-children from 6 to 13 (under atropine) 100 per cent. hypermetropic.
Emmert.—Elementary school; 1 myopic, 98 per cent. hypermetropic.
Koppe.—Kindergarten school; none myopic, 98·4 per cent. hypermetropic.
Koppe.—Public school; 2·4 per cent. myopic.
Callon.—Negro school, N. Y.; none myopic, 90·6 per cent. hypermetropic, and 9·4 per cent. emmetropic.
Harsen.—808 children; 2 8 per cent. myopic, 94·4 per cent. hypermetropic, and 1·6 per cent, emmetropic.

Hansen shows clearly by his statistics that hypermetropia diminishes as age advances :—

Thus in 10th year average H = 1·75 D.
,, 11th ,, ,, ,, 1·50 D.
,, 12th ,, ,, ,, 1 D.
,, 13th ,, ,, ,, 1 D.
,, 14th ,, ,, ,, 0·75 D.

1529. *Schmidt-Rimpler on the Etiology of the Development of Cataract in the Middle-aged.*—The relative frequency of cataract in young persons suffering from some form of mental disease has already been observed. The author of this paper (*Klin. Monatsbl. für Augenheilk.*, March 1883) draws attention to what he believes to be an etiological connection between cataract and convulsions. In twenty-seven patients, in whom cataract had formed between the ages of 16 and 48, there were four epileptics, and two women with frequent convulsions, perhaps hysterical; one of the latter, according to her own statement, lost consciousness during the seizure. A third female stated that 'she was very nervous.' Thus in twenty-seven cataract patients of middle age, in whom the generally recognised causes (injury, diabetes, &c.) were absent, he found six suffering from convulsions, or about 22 per cent. Of the four epileptics, two were men aged respectively 37 and 42, and two women aged 33 and 36. The two women who had hysterical epileptiform convulsions were 40 and 47 years old. In all, the cataract was bilateral. There were altogether eighteen women and nine men in the series. From the small number of his observations, he does nothing to establish a hard and fast causational relation between the occurrence of fits and the formation of cataract, although, he argues, there is a close analogy between this relation and the development of lamellar cataract in children who suffer from teething fits. R. MARCUS GUNN.

PATHOLOGY.

RECENT PAPERS.

1530. CORNIL AND BABÈS.—The Relation of Lupus to Tubercle. (*Le Progrès Méd.*, No. 33, 1883.)

1531. BABÈS and CORNIL.—Bacilli in Tuberculous Lesions of the Skin. (*Le Progrès Méd.*, No. 33, 1883.)

1532. COMBY.—Infective Pleurisy. (*Le Progrès Méd.*, No. 33, 1883.)

1533. EICHLER and FINKLER.—The Tubercle-Bacillus. (*Centralblatt für Klin. Med.*, April 14.)

1534. WEICHSELBAUM.—Experimental Researches on Inhalation-Tuberculosis. (*Med. Jahrbücher*, 1883, Heft v.)

1535. CORNIL.—A Case of Tuberculosis of the Genito-Urinary Tract. (*Le Progrès Méd.*, No. 33, 1883.)

1536. LINDMANN.—Tuberculosis from Contagion. (*Berliner Klin. Wochensch.*, July 25.)

1537. BRAUN.—The Origin of Bothriocephalus Latus. (Virchow's *Archiv.*, May.)

1538. CORNIL.—On Rhinoscleroma. (*Le Progrès Méd.*, No. 30, 1883.)

1539. CHARCOT AND FÉRÉ.—Osseous and Articular Affections of the Foot in Tabes. (*Le Progrès Méd*, No. 31, 1883.)

1540. GREENISH.—A Case of Primary Sarcoma of the Pleura. (*Jour. of Anat. and Phys.*, April 1883.)

1541. HENROT.—On the Anatomical Lesions and Nature of Myxœdema. (*Le Progrès Méd.*, No. 37, 1883.)

1542. GUTTMANN.—Bacilli in Tuberculous Ulcers of the Palate. (*Deutsche Med. Wochensch.*, May 23.)

1543. KÜSSNER.—Inoculation of Tubercle. (*Deutsche Med. Wochensch.*, Sept. 5.)

1544. NAUWERCK.—Recovery from Tuberculosis. (*Deutsche Med. Wochensch.*, June 6.)

1545. ISRAEL.—Inoculation of Actinomycosis. (*Deutsche Med. Wochensch.*, June 20.)

1546. KÜMMEL.—Progressive Myositis Ossificans. (*Deutsche Med. Wochensch.*, June 6.)

1547. MOSLER.—Intestinal Tuberculosis from Swallowing Sputa. (*Deutsche Med. Wochensch.*, May 9.)

1548. VON KOGERER.—Case of Aortic Aneurism bursting into a Bronchus. (*Wiener Med. Blätter*, June 28.)

1549. ZEMBLINOFF, V.—A Contribution to the Study of the Pathology of Bacterial Ascending Nephritis. (*St. Petersburg Inaug. Dissertation*, 1883, p. 94.)

1550. BURTZEFF, T. T.—On a Case of Bacterial Nephritis and Keratitis. (*Vratch*, 1883, No. 18, p. 282.)

1551. ECKERT, N. T.—A Contribution to the Study of Pathology of the Blood in Glanders. (*St. Petersburg Inaug. Dissertation*, 1883, p. 77; and *Arkhiv Veterinarnykh Nauk*, 1883, Vol. i., p. 1, and Vol. ii., p. 87.)

1552. PROTOPOPOFF, N.—On Cerebral Changes in Uræmia. (*Vratch*, 1882, No. 26, p. 424.)

1553. ALBRECHT, R. K.—Two Cases of Echinococcus Multilocularis of the Liver. (*Vratch*, 1882, No. 26, p. 419; and No. 27, p. 446.)

1554. BAUMGARTEN.—The Method of Tubercular Infection. (*Zeitschr. für die Klin. Med.*, Band vi.; and *Centralbl. für die Med. Wiss.*, Aug. 4.)

1555. ZIEHL.—The Presence of Micrococci in Pneumonic Sputum. (*Centralblatt für die Med. Wiss.*, June 23.)

1556. MATRAY.—Pneumonic Cocci. (*Wiener Med. Presse*, and *Centralbl. für die Med. Wiss.*, Aug. 25.)

1557. WORTMANN.—The Diastatic Fermentation of Bacteria. (*Zeitschr. für Physiol. Chemie*, Band vi., and *Centralbl. für die Med. Wiss.*, March 3.)

1558. BOLLINGER.—Bacilli from the Udder of a Tuberculous Cow. (*Centralbl. für die Med. Wiss.*, Aug. 18.)

1559. DANISCH.—The Transmission of Lepra to Animals. (Virchow's *Archiv*, Band xcii., and *Centralbl. für die Med. Wiss.*, July 21.)

1560. USKOW.—The Pathology of Cardiac Nerves. (Virchow's *Archiv*, Band xci., and *Centralbl. für die Med. Wiss.*, July 14.)

1561. MOSLER.—Zooparasitic Disease of the Heart. (*Centralbl. für die Med. Wiss.*, Sept. 8.)

1562. DE VINCENTIS.—On Xanthelasma. (*Atti della Assoc Ottalm. Ital.*, and *Annali Univ. di Med.*, June 1883.)

1563. MARAGLIANO, PROF. E.—On the Pathogenes's of Typhoid Fever. (*Annali Univ. di Med.*, May 1883, and *Centralbl. für die Med. Wiss.*, 1883, p. 125.)

1564. LUSSANA, F.—On the Quantitative and Qualitative Secretion of the Bile in the Inanition following Division of the Vagi Nerves. (*Gazz. Med. Ital. Prov. Veneie*, July 21, 1883.)

1565. TCHERNOGUBOFF.—A Case of Absence of the Uterus. (*Mediz. Obosr.*, April 1883.)

1566. GOODRIDGE.—Cardiac Thrombosis as occurring in Acute Disease. (*Practitioner*, June.)

1567. BRISTOWE.—Abdominal Sanguineous Cysts. (*Lancet*, May 1883, p. 763.)

1568. SMITH.—The Presence of Bacillus Tuberculosis in an Abscess near the Anus. (*Lancet*, June, p. 1108.)

1569. FIRTH.—A Peculiar Congenital Condition of the External Ear. (*Brit. Med. Jour.*, June, p. 1177.)

ART. 1530. *Cornil and Babès on the Relation of Lupus to Tubercle.*—Messrs. Cornil and Babès, according to a letter published by the former in the *Progrès Méd.*, No. 33, 1883, are endeavouring to carry out a series of experiments, to test the hypothesis that lupus stands in the same relation to tuberculosis that vaccinia does to variola, and that inoculation with the former may prove protective against infection by the latter. These experiments were begun before a similar idea was expressed by M. Paul Bert at the Société de Biologie.

1531. *Babès and Cornil on the Presence of Bacilli in Tubercular Lesions of the Skin.*—MM. Babès and Cornil (*Le Progrès Méd.*, No. 33, 1883) showed in a former paper that bacilli are not present constantly in otherwise quite characteristic tubercular lesions of the skin, but relate three cases: 1, perineal ulcer in a phthisical man; 2, ulceration of the lower lip in a phthisical woman: and 3, tuberculosis of the vagina in a tubercular subject. In all of these, bacilli were found in the tissues of the local lesion.

1532. *Comby on Infective Pleurisy.*—Under the title of infective pleurisy, Dr. Comby publishes an article (*Le Progrès Méd.*, No. 33, 1883), in which he refers to the rapidly fatal cases of pleurisy related by Fraentzel (Ziemssen's *Handb. der Spec. Path.*, Band iv., 2, 1875); two cases of Professor Bouchard's, in which bacteria were found in the exudation and in the blood (Laussedat, *De la Pleurésie Infectieuse*; Thèse de Paris, 1881); the observation of M. Quinquaud when microphytes were found in the exudation and the urine (Goumy, Thèse de Paris, 1881; and finally, two cases under the care of M. Hallopeau of acute empyema (Bonyer, Thèse de Paris, 1883).

1533. *Eichler and Finkler on the Tubercle-Bacillus.*—Eichler and Finkler (*Centralbl. für Klin. Med.*, April 14, 1883), assert that it is a mistake to believe or to suppose that there are no bacilli other than those called tubercular, which stain blue, and cannot be decolorised by washing in nitric acid. They teach that even nuclei, if not exposed to the agency of nitric acid for too long a period, may have the blue colour restored by washing in distilled water. Likewise, there are bacilli, not tubercular, which may be similarly treated with nitric acid without the permanent loss of their blue tint. The point seems really to be that the tubercle-bacilli are much more resistent to the treatment employed than other forms of bacteria, but are not absolutely unchangeable by it. The prolonged influence of nitric acid may even so fully decolorise them that no bathing in pure water will restore the blue colour. The matter would seem, so far, to be entirely one of degree. But Messrs. Finkler and Eichler go further: with regard to the colorisation of the 'back-ground' (bismark-brown was employed), they say that the assertion that the tubercle-bacilli fail to take up this second colour is only relatively accurate. It is then, on the possession of these *relative* properties that the diagnosis of tuberculosis must depend, if we are to trust to the simple staining method as distinguished from cultivation and inoculation experiments. Put in another way, we may say that those structures which are soonest decolorised by nitric acid are the more readily susceptible to the coloration by a second staining fluid; and conversely, the most hardy are least susceptible. To this class belong the tubercle-bacilli.

1534. *Weichselbaum on Experimental Researches on Inhalation-Tuberculosis.*—Weichselbaum (*Mediz. Jahrbücher*, 1883, Heft II.) has repeated the experiments of Tappeiner and Bertheau on the production of tuberculosis in dogs by making them inhale an atmosphere charged with pulverised tubercular sputa distributed by a spray-producer. He arrives at the following conclusions. 1. The inhalation of tubercular sputum causes in dogs constantly a true miliary tuberculosis of the lungs, and frequently of other organs also (bronchial glands, kidneys, &c.); but this appears to have no progressive character. 2. The inhalation of other substances—that is, non-tubercular substances—causes only conditionally nodules in the lungs, which, indeed, agree externally with tubercles, but cannot be identified with them. In their application to human pathology, he admits that the conditions are dissimilar, but he suggests that they indicate the importance of isolating consumptive patients and disinfecting their sputa. It is noteworthy that in the nodules of tubercle produced by

these means the tubercle-bacilli were fully developed, and there were anatomical appearances of retrogression of the growth. It is at least possible that these appearances illustrate the probable truth that, however strong the dose of poison, its reception and propagation are dependent upon the predisposition of the organism acted upon.

1535. *Cornil on a Case of Tuberculosis of the Genito-Urinary Tract.*—M. Cornil (*Le Progrès Méd.*, No. 33, 1883) relates the case of a young man who five years previously had an attack of broncho-pneumonia, followed by pleuritic effusion, which passed off without leaving any physical evidence of permanent mischief, though in winter he was subject to bronchitis. After sexual intercourse, this young man was taken with severe cystitis, and a fungous ragged ulcerated surface could be detected with the sound. On examining the urinary sediment by Ehrlich's method, numerous bacilli tuberculosis were found.

1536. *Lindmann on Tuberculosis from Contagion.* Lindmann (*Berliner Klin. Wochensch.*, July 25, 1883) relates two cases where tubercular ulceration followed by constitutional symptoms followed the rite of infantile circumcision. The operator was the subject of tuberculosis, and died shortly after operating in these cases. The operation was performed in the usual manner, the operator taking a mouthful of wine and sucking the parts to arrest hæmorrhage. In one case there was a family history of phthisis, and the child ultimately died of acute pulmonary phthisis. The other, after suffering from enlarged glands and osteitis of the wrist-joint, recovered and remained well.

1537. *Braun on the Origin of Bothriocephalus Latus.*—Braun (Virchow's *Archiv*, May 1883, p. 364), having discovered that the muscles of the pike caught in certain lakes near Dorpat contained numerous scolices, has been able to prove by direct experiment on three students that the ingestion of these fish in an uncooked condition is followed by the development of bothriocephalus latus in the intestine.

1538. *Cornil on Rhinoscleroma.*—M. Cornil has recently read a paper to the Société Anatomique of Paris on this subject (*Le Progrès Méd.*, No. 30, 1882). It resembles lupus, but differs from it histologically. It has been worked at by several German dermatologists, but Pellizari's monograph contains a full bibliography (*Il Rinoscleroma.* Celso Pellizari. Firenze, le Mounier, 1883). A section of a small nodule removed by M. Verneuil showed very little change in the epidermis or glands. The papillæ were well developed, and richly vascular. The vessels of the corium were thickened and infiltrated with small round cells, while between the vessels were large round cells lying in a reticulum. These cells were filled with some substance, which in many cases displaced the nucleus, and which may exude from the cell in which it has formed. This substance appears to be simply hyaline. He could find no bacilli, and refers to the recent paper of Babès, which showed that granules of this hyaline substance stained with aniline and produced appearances suggestive of bacilli.

1539. *Charcot and Féré on Osseous and Articular Affections of the Foot in Tabes.*—Charcot and Féré (*Le Progrès Méd.*, No. 31, 1883) describe three cases of a peculiar deformity of the foot in tabes, a specimen of which was shown at the International Medical Congress by Mr. Herbert W. Page (*Trans. of the International Med. Congress*, 1881, Vol. i., p. 124). This deformity consists in thickening of the bones of the tarsus and partial dislocation of the inner tarso-metatarsal articulations, so as to cause a well marked angular projection on the inner side of the foot. In a necropsy on a similar case, made by Dr. Capitan, he found erosion, wasting, and vegetations on the free borders of the articular surfaces of the astragalus and calcaneum; the astragalus was broken at the level of its neck: the scaphoid and cuboid were wasted, deformed, and hardly recognisable. There were numerous small detached fragments, amongst which it was hard to recognise the third cuneiform bone. The first cuneiform was enlarged, thickened from above downwards; as was also the posterior part of the first metatarsal, to which it was soldered. The second cuneiform, deformed posteriorly, was also united to the second metatarsal. All the bones of the tarsus and metatarsus were spongy, friable, and unusually light.

1540. *Greenish on Primary Sarcoma of the Pleura.*—Mr. R. W. Greenish (*Jour. of Anat. and Phys.*, April 1883) records a case of primary sarcoma of the pleura in a woman, aged 54. The left side of the chest was full of fluid, and the pleura was covered more or less thickly with nodules, some sessile, some pedunculated, all pigmented on their surfaces, hard, and cartilaginous to the feel, and semi-translucent on section. Under the microscope they presented the appearance of alveolar sarcoma. He gives the following bibliography of the subject: — Lebert (*Traité d'Anatomique Path.*), three cases; Vidal (*Bulletins de la Société Anatomique*, Tome xxvii.); Lépine (*Ibid.*, Tome xiv.); Böhme (Virchow's *Archiv*, Bd. lxxxi.); Schulz (*Archiv der Heilkunde*, Bd. xv.); Birch-Hirschfeld (*Lehrbuch der Path. Anatom.*); Eppinger (*Schmidt's Jahrbücher*, 1880); and Unverricht (*Zeitschrift für Klinische Medicin*, 1882), one case each. In all, the growth formed a thick layer of cartilaginous hardness one to several centimètres thick. In two cases the right side was affected, in six the left, and in three both sides. In six cases it is stated to have been more advanced in the costal pleura than elsewhere. Lépine's case was aged 10, all the others were over 35. Birch-Hirschfeld, Böhme, Eppinger, and Schultz describe the growth as starting from the endothelium of the lymphatics, but Greenish finds no evidence of this, and believes the cells to be derived from the ordinary connective tissue cells.

1541. *Henrot on Myxœdema.*—Henrot (*Des lésions anatomiques et de la nature du Myxœdème.*—Reims, 1882; reviewed in *Progrès Méd.*, No. 37, 1883) has examined with care the lesions of the nervous system in myxœdema, and draws especial attention to the hypertrophy of the trunks of the nerves, the pneumogastric, glossopharyngeal, brachial plexus, especially the ganglia and cord of the great sympathetic, and to the enlargement of the pituitary body and pineal gland. On these facts he founds a theory that the disease consists in a return to the embryonic state of the subcutaneous, submucous, and interstitial connective tissue, and the formation of mucin, under the influence of the enlarged pituitary and pineal glands which preside over this function.

ROBERT SAUNDBY, M.D.

1542. *Guttmann on Bacilli in Tuberculous Ulcers of the Palate.*—In the 'Verein für innere Medicin' in Berlin on April 30 (*Deutsche Med. Wochensch.*, May 23) Dr. Guttmann gave a demonstration on the

presence of bacilli in tuberculous ulcers of the soft palate. They are specially interesting as being very rare manifestations of tuberculous disease; he had found them in only 1 per cent. of the cases treated in his hospital clinic.

1543. *Küssner on Inoculation of Tubercle.*—Dr. Küssner, of Halle, communicates to the *Deutsche Med. Wochensch.* of Sept. 5 the result of some inoculation experiments with tuberculous sputa, undertaken by himself and Herr Panecki, chiefly on rabbits, but once or twice on dogs. They found that, without exception, the injection of tuberculous sputa into the trachea produced tubercular changes in the lung, while non-tuberculous material never did. The tuberculous nature of the sputa was in all cases determined by the presence of bacilli, and the nature of the induced infection in the same way. Two inoculations were very interesting. In the one case, the sputa were taken from a patient believed to be simply catarrhal, and only after the appearance of tuberculosis in the animal was the previous history of hæmoptysis and other phthisical symptoms obtained from the physician who had been in attendance. The other case was the converse of this. The sputa had been taken from a patient supposed to be phthisical, but the negative result of the inoculation caused inquiry to be made, when it was found that he had been treated for years for chronic catarrh with bronchiectasis. Subsequent examination of the sputa for bacilli revealed the true state of the patients. In experimenting with disinfectants, the investigators found that only when these were employed in a solution of from 1·5 to 2 per cent. was the infection prevented, although weaker solutions lessened the effects in direct proportion to their strength.

1544. *Nauwerck on Recovery from Tuberculosis.*—Dr. Nauwerck, of Tübingen, reports to the *Deutsche Med. Wochensch.* of June 6 a case of cured tuberculosis, which occurred in the practice of Dr. Hufschmid, of Schlesien. The patient was 46 years of age, and died last April of carcinoma of the pylorus, after suffering for about a year. At the necropsy the apices of both lungs were found adherent to the costal pleura, and the pulmonary parenchyma was shrunken and toughened, with scattered bronchiectases and patches of caseous and calcified tissue. A few typical bacilli were found in a small cavity filled with caseous material, and surrounded by thick walls. In 1877 the patient had begun to cough, lost flesh, and looked ailing, which symptoms lasted about a year, and disappeared without treatment, and without hæmoptysis or any symptom necessitating confinement to bed. There was no history of tubercle in previous generations, but four brothers of the patient had died of pulmonary tuberculosis, and the affection had also appeared in the next generation.

1545. *Israel on Inoculation of Actinomycosis.*—At the meeting of the Berlin Medical Society on June 13 (*Deutsche Med. Wochensch.*, June 20) Herr Israel showed microscopic preparations from the first successful inoculation of a rabbit with actinomycosis. The inoculation had been practised into the peritoneal cavity in the end of March, and no symptoms had followed; but when the animal was killed, the day before the demonstration, a few tumours of the size of cherries containing the characteristic fungus were found adherent to the peritoneum.

1546. *Kümmel on Progressive Myositis Ossificans.* At the German Surgical Congress in Berlin on April 5 (*Deutsche Med. Wochensch.*, June 6) Herr Kümmel, of Hamburg, showed an interesting case of progressive myositis ossificans. A deformity of the spinal column had been noticed fourteen days after birth, and the various points of ossification in the muscles had gradually increased until only the leg and arm were left unaffected. A tough fibrous cord existed in the substance of the rectus abdominis, and the psoas was felt, under chloroform, to be affected. The floor of the mouth had become a callous mass, and no distinction could be felt between the hyoid bone and the pomum Adami. [The age of the patient is not given.—*Rep.*]

1547. *Mosler on Intestinal Tuberculosis from Swallowing Sputa.*—Dr. Mosler, of Greifswald, communicates a paper to the *Deutsche Med. Wochensch.* of May 9, on the infection of the intestinal mucous membrane from the swallowing of tuberculous sputa. In one case, which he treated in hospital, the patient, who was rather stupid, could not be persuaded into ejecting the sputum, but invariably swallowed it, in quantities which other symptoms showed to have been very great. Ten days after his first attack of cough with expectoration, diarrhœa and severe colic came on, which was relieved by opiates and other appropriate remedies, but which, nevertheless, went on, until death occurred in eight days. Distinct signs of tubercle were found in the lungs, but nowhere else in their immediate neighbourhood, and in no other part of the body except abundantly in the intestines, especially the jejunum. Mosler attributes the presence of tubercle in the intestines in all cases more to the swallowing of the sputa than to a general infection. He has not as yet succeeded in producing tuberculosis of the intestines in animals by feeding them on tuberculous sputa and pieces of solid tubercle, but in one case it caused considerable inflammation of the stomach and small intestine. A tonic prophylactic treatment, in the direction of the bowels, is indicated, as tubercle chooses the weakest organ for its development. The case cited had gone through an attack of typhoid fever some little time before, which might have predisposed to the infection.

1548. *Von Kogerer on a Case of Aortic Aneurism bursting into a Bronchus.*—In the *Wiener Med. Blätter* for June 28, Dr. von Kogerer describes a case of contraction of the lung which occurred in the clinic of Professor Nothnagel, in which a pleuritis which began in Dec. 1882 was followed so early as Feb. 1883 by well-marked symptoms of complete retraction of the lung. Death occurred in consequence of a violent hæmoptysis, which was found on *post mortem* examination to have resulted from the bursting of an aneurism of the descending aorta, which had encroached on the left bronchus. The bronchial wall next the aneurism was eaten away, and even the opposite wall had been denuded of its epithelium through pressure, leaving the cartilage bare. The rapidity of the pulmonary contraction was probably due to the atelectasis caused by the pressure on the bronchus, and, as that pressure was exerted by the aneurism, there was an indirect relation between the aneurism and the contraction. The aneurism was in such a situation that it could not be diagnosed during life. ALICE KER, M.D.

1549. *Zemblinoff on Bacterial Ascending Nephritis.*—Following a suggestion made by Professor N. P. Ivanovsky, Dr. V. Zemblinoff (*St. Petersburg Inaug. Dissertation*, 1883) has undertaken numerous experiments on dogs to find out—1. the ways

through which the micro-organisms penetrate into the kidney in 'nephritis ascendens bacterica' (that is, in pyelonephritis of Klebs); and 2, the part played by the parasites in the development of the renal disease under consideration. The author's experiments consisted in the production of pyelonephritis by injecting various foul liquids (urine, flesh infusion, &c.), or Cohn's fluid (containing bacteria) into the animals' bladders. In one series of his experiments, the author, having made an injection, tied up the animal's prepuce after Cohnheim's method, in order to produce retention of urine. In another group, the prepuce was left untied, but an often repeated catheterisation was made, to imitate lithotriptic and similar surgical manipulations, after which pyelonephritis sometimes shows itself. In every case some fine colouring powder (carmine or insoluble Berlin blue) was suspended in the injected fluid, for the better tracing any locomotion of the latter. Dr. Zemblinoff sums up the results of his interesting researches as follows. 1. The occurrence of a direct return of urine from the bladder towards the kidney, under normal anatomical relations of the uropoietic apparatus, is experimentally proved beyond any doubt. 2. This return is caused by a series of combined movements of the bladder and ureters. 3. Its occurrence may easily explain the co-existence of integrity of the ureters, and of a characteristic lesion of the kidneys, in cases of pyelonephritis of vesical origin. 4. Pyelonephritis, or, better, bacterial ascending nephritis, occurs more often than is generally thought. 5. It causes deep destruction of the renal tissues only in comparatively rare cases; far more often, it leads to the formation of cicatricial tissue. 6. The chief agent producing an inflammatory process in cases of bacterial ascending nephritis are micro-organisms, but not products of decomposition of urine.

1550. *Burtzeff on a Case of Bacterial Nephritis and Keratitis.*—At a recent meeting of the Medical Society of St. Petersburg, Professor T. T. Burtzeff (*Vratch*, No. 18, 1883) detailed the case of a peasant woman, aged 25, in the eighth month of pregnancy, who had been admitted into the hospital on account of relapsing fever. Nine days after her admission, she was delivered of a dead fœtus. On the tenth day after delivery she left the hospital seemingly in fair health, but on the twenty-first she was re-admitted with high fever and enlargement of the spleen. On the twenty-fifth day there appeared delirium; on the twenty-ninth, purulent infiltration of the corneæ; on the thirty-third, their perforation; then vomiting and collapse followed; and on the thirty-fourth day the patient died. At the *post mortem* examination there were found, beside abscesses and gangrenous foci in the lungs, an acute parenchymatous and interstitial inflammation of the kidneys with formation of minute abscesses, and accumulation of pus under the renal capsule. Microscopical examination showed that granularity of the swollen epithelial cells of the straight tubuli depended on the presence of micro-organisms. The interstitial tissue of the kidneys was also infiltrated with sporadic and colonial bacteria. In some of the dilated renal vessels thrombi, consisting entirely of micrococci, were present. Similar accumulations of the fungi were detected in both of the corneæ. Prof. Burtzeff does not doubt that the case above is an instance of 'bacterial nephritis and keratitis.' He does not attempt, however, to build up any definite theory of the case. [Schistomycetes in hypopyon-keratitis were also described by Dr. Leber in the *Arch. für Ophthalm.*, Band xxv., Heft 2.—*Rep.*]

1551. *Eckert on the Pathology of the Blood in Glanders.*—This is a very carefully written work, embodying the results of an able study of the literature, and of experiments carried out under extremely dangerous conditions. Dr. N. T. Eckert (*St. Petersburg Inaugural Dissertation*, 1889; and *Arkhiv Veterinarnykh Nauk*, 1883, Vols. i. and iii.), who worked under the guidance of Prof. A. A. Raievsky, made thirty analyses of the blood taken from twelve glandered horses. The general conclusions drawn by the author are these. 1. The amount of fibrine in the glanderous process is considerably increased (more than double the normal). 2. The quantity of hæmoglobine is slightly decreased. 3. The proportions of water and solids remain unchanged. 4. The amount of albuminoid matters in the blood-serum is markedly augmented.

1552. *Protopopoff on Cerebral Changes in Uræmia.*—In Virchow's *Archiv*, Vol. 82, p. 40, Professor L. V. Popoff described hyaline scales which he has found in the cerebral vessels and perivascular spaces in uræmia artificially produced in dogs and rabbits. He believed that these scales played an important part in the causation of uræmic phenomena. According to his exposition, the hyaloid bodies which are derived from the red blood-corpuscles under the influence of abnormally accumulated urea form thrombi within vessels, and lead in this way to disturbance of the circulation; besides, they produce pressure on the brain-substance. To test the truth of Professor Popoff's assertions, Dr. N. Protopopoff (*Vratch*, 1882, No. 26) undertook, in Professor J. N. Obolensky's laboratory, a series of experiments on dogs, geese, and hens, in which he produced uræmia by tying the ureters, or by extirpation of the kidneys. He arrived at the following results. 1. Cerebral symptoms in uræmia cannot be explained by the presence of Popoff's hyaloid masses, for the latter do not present any constant phenomena. 2. The brains of uræmic birds never contain any hyaloid flakes. 3. Hyaloid scales are formed from red—and possibly white also—blood-corpuscles. 4. It is doubtful whether urea alone may produce the transformation of blood-corpuscles into flakes; it is even possible that urea does not take any part in this process. No flakes were found by the author in the brains of patients who died from chronic uræmia. [The first of Dr. Protopopoff's conclusions is in strict harmony with Ivanoff's views concerning hyaloid flakes in dogs. See the LONDON MEDICAL RECORD, March 1883, p. 20.—*Rep.*]

1553. *Albrecht on two Cases of Echinococcus Multilocularis of the Liver.*—Up to the present time, it has been generally believed that multilocular echinococcus is met only in Southern Germany and Switzerland. Dr. R. K. Albrecht, of St. Petersburg (*Vratch*, 1882, Nos. 26 and 27), publishes two interesting cases, which positively show that this parasitic form occurs in Russia also. Both of the patients (a soldier's wife, aged 60, and a labourer, aged 69) never in their lives crossed the Russian frontier. Their disease was recognised only after death. [Dr. Albrecht's paper, dealing almost exclusively with the anatomo-pathological side of the cases, is, we think, only the second contribution to the study of the subject emanating from a Russian physician. The first was Dr. Maria Prugeansky's inaugural dissertation, written at Zürich in 1873

under Professor Biermer's guidance (*Die Multiloculäre Echinococcusgeschwulst.—Rep.*]

V. IDELSON, M.D.

1554. *Baumgarten on the Method of Tubercular Infection.*—P. Baumgarten (*Zeitschr. für die Klin. Med.*, Band vi., and *Centralbl. für die Med. Wiss.*, Aug. 4) considers as problematical the received views upon the etiology of phthisis with reference to the reception, by respiration, of the bacilli of tubercle in constitutions originally predisposed thereto. On the other hand, he holds to the possible transfer of a specific tuberculous parasite during intra-uterine life. For this allocation of the bacilli in the embryonic tissues, Baumgarten points to the lymphatic glands and the medulla of bones, in which colonies of the bacilli subsist in a kind of larval existence, until, from external influences, the vitality of the tissues is lowered. The occasions of awakening these slumbering broods into vital activity occur during childhood in scrofulous glands and diseased joints, and from inflammation and local injuries ; in later periods of existence, when the tissues have ceased to proliferate, a limit is placed to the phthisical processes. After this, tubercular infection by the fungus of tubercle, either through the air or in nutrition, plays a subordinate part in the etiology of phthisis in man.

1555. *Ziehl on the Presence of Micrococci in Pneumonic Sputum.*—Dr. Franz Ziehl of Heidelberg (*Centralbl. für die Med. Wiss.*, June 23), has had the opportunity of examining micrococci in two cases of pneumonia in the practice of Professor Erb. In the first patient, a man aged 24, a shoemaker, suffering under acute pneumonia, the sputum contained large quantities of micrococci. Convalescence commenced on the fifth day. In the second case, beginning with all the usual acute symptoms, the sputum was rust-coloured, containing coagulated fibrin, and abundance of micrococci. Fever began to decline on the fifth day. In these cases, the presence of the cocci described by Friedländer was considered sufficient to prove the infectious origin of the disease.

1556. *Matray on Pneumonic Cocci.*—A characteristic micrococcus is reported by M. Matray (*Wiener Med. Presse*, 1883, and *Centralbl. für die Med. Wiss.*, Aug. 25) in seventeen cases of pneumonia, more especially in the early morning expectoration. The size of the coccus was 1 micromillimètre (= about 1-25,000th English inch), the length was double the thickness, the ends were rounded ; it had a sharp outline, and was enclosed in a transparent membrane. The cocci were uniformly distributed over the field of the microscope, often in sarcinoid groups. In a case of bronchitis, these organisms were discovered after treatment with dilute acetic acid.

1557. *Wortmann on the Diastatic Fermentation of Bacteria.* — J. Wortmann, in the *Zeitschr. für Physiol. Chemie*, Band vi., S. 287 (*Centralbl. für die Med. Wiss.*, March 3) says that, if bacteria be added to a solution of chloride of ammonium through which starch powder has been diffused, the starch will gradually be dissolved. The rapidity with which this solution takes place depends upon the compactness of the starch. Wheat-starch is most quickly dissolved, then palm, curcuma, orris ; potato-starch is not affected. The bacteria derive carbon from the starch, if no other source be present. In fluids containing tartaric acid, the process is slower, but, under the influence of atmospheric oxygen, it is gradually effected. In the course of the metamorphic change sugar is formed, the ferment of the bacteria thus evincing a diastatic power, but possessing no peptic properties. If the mixture be precipitated by alcohol, the aqueous fluid is found to contain starch and sugar. The metamorphosis takes place more rapidly in weakly acid than in neutral solutions.

1558. *Bollinger on Bacilli from the Udder of a Tuberculous Cow.*—O. Bollinger (*Centralbl. für die Med. Wiss.*, Aug. 18) attributes the virulence of the secretion from a diseased mammary gland to the presence of bacteria. The milk of a tuberculous cow was injected into the tissues of a guinea-pig, which became tuberculous. Tubercle-bacilli were found in the udder of a cow ill from murrain, and in the milk of the same animal. A guinea-pig, into whose abdominal cavity these bacilli were injected, died in eleven days with tubercle in the spleen and peritoneum.

W. B. KESTEVEN, M.D.

1559. *Danisch on the Transmission of Lepra to Animals.*—O. Danisch (Virchow's *Archiv*, Band xcii., and *Centralbl. für die Med. Wiss.*, July 21) describes experiments performed with the material derived from a man who had lepra, in the Sunda Islands. Injections of fluids containing the fungus—*e.g.* blood, serum, &c.—produced no decided result beyond a local inflammation, not attended with the production of bacilli. Positive results were obtained in one instance, by the insertion of a portion of diseased tissue into the anterior chamber of the eye of a puppy. A fine network-like appearance occurred on the edge of the iris, gradually extending over its whole surface, and attacking Descemet's membrane [posterior elastic lamina of Bowman—*Rep.*] and the anterior capsule of the lens. In each of these networks were to be seen bacilli in greater or less quantities. The richness of the fungus, in bacilli, was so great, that a multiplication to a great extent attended the insertion into the animal tissues. Signs of cerebral disturbance occurred in the two animals experimented upon, two months afterwards, in one, and in the other after five months ; in the first case, there was effusion into the pia mater on the side of the affected eye ; in the second, a tumour developed at the exit of the fifth, sixth, and eighth cerebral nerves. The fungus was detected in the pia mater at these last sites. In some puppies and mice, portions of diseased structure were absorbed without further consequences. Two fragments of granulations being inserted, the one into the abdominal cavity, the other under the integuments of a cat, bacilli rapidly made their appearance, and were found in the lymphatic spaces of the arteries, and in the adipose tissues. From these observations the author infers that the fungus of lepra can be communicated from man to animals, and will spread in the same manner to adjacent structures.

1560. *Uskow on the Pathology of Cardiac Nerves* Uskow (Virchow's *Archiv*, Band xci., and *Centralbl. für die Med. Wiss.*, July 14) has, under Recklinghausen's directions, studied the condition of the nerves of the heart in hypertrophy of that organ, occurring with emphysema, chronic nephritis, and general arterial sclerosis. He found bunch-like swellings and thickening of the myelin, with atrophy of the sheath. He describes also fatty degeneration of fibres with increase of the nuclei in Schwann's sheath, with the effects usually observed after division of nerves, regarded as forms of degeneration and regeneration. The diminution of medullary fibres, with increased proliferation of the nuclei *pari passu* with the hypertrophy of the muscular structure, have also been observed in cases of unilateral hypertrophy of the heart, both on the normal and on

the hypertrophied sides of the organ. No uniform relation between fatty degeneration of the muscles and nerves had been observed. The swellings of the medulla, and proliferation of nuclei, Uskow regards as evidence of neuritis. The degenerative condition of the cardiac nerves the author considers sufficient to account for the constitutional condition. The nerve-cells presented enlargement of the nuclei, and thickening of their capsules (?).

1561. *Mosler on Zooparasitic Disease of the Heart.*—In 1863, Dr. F. Mosler having fed a calf with the proglottida of *tænia mediocanellata*, the animal died with convulsions in twenty-one days. The muscles at large, and that of the heart, were found studded with countless spots or tubercles of the size of pins' heads, enclosing in each a cysticercus. The introduction of this tænia into the human heaft is attended with fatal consequences. The author has collected the literature of sixteen cases (*Centralbl. für die Med. Wiss.*, Sept. 8). In most of these the cysticerci were found only on necropsy. In no case were they ascertained by diagnosis during life, although symptoms of thoracic disorder in some of these cases were recognised. The author has also collected twenty-nine published cases of echinococci of the heart. They were most frequently found on the right side. They appeared as if a worm were imbedded in the substance of the heart, but not protruding into its cavity. These parasites gave rise to no symptoms, although, when superficially seated, they might by perforation give rise to pleuritis or pericarditis. In eighteen cases the cyst protruded into the different cavities. In thirteen cases death had occurred suddenly by embolism, without any premonitory signs. In others, the perforation gave rise to prolonged cardiac or pulmonary disturbance. W. B. Kesteven, M.D.

1562. *De Vincentis on Xanthelasma.*—In this communication (*Atti della Assoc. Ottalm. Ital., Annali Univ. di Med.*, June, No. 3) the author reconfirms his conception, already expressed, that this morbid form must be considered as a true neoplasia of epithelioid elements, and not as a simple hyperplasia of the connective tissue with infiltration of pigment-granules. The epithelioid cells undergo a retrogressive phase, and are refilled with a special adipose matter, which causes the characteristic colour of the neoplasia. At the meeting where the paper was read, the author showed many microscopical preparations illustrating his views.

1563. *Maragliano on the Pathogenesis of Typhoid Fever.*—Ebert and Klebs, and many others, have observed the special micro-organisms in the tissues of those who have died of abdominal typhus. Maragliano sought to find them in the blood during life. With this scope he examined the blood of the general circulation in the usual manner, and with all necessary precautions, from the end of the finger; he also examined that of the spleen, procuring it by means of a Pravaz's syringe thrust into the parenchyma, as Sciamana of Rome first practised for the examination of the blood in malarial poisoning. He observed the blood in fifteen cases. In the acme of the disease the blood contained micro-organisms, isolated and in colonies; almost all were micrococci. In the blood of the spleen only were found bacilli perfectly similar to those described by Klebs and Eberth, but few in number. In convalescence, the micro-organisms disappear from the blood of the general circulation and from that of the spleen. After large doses of quinine, few organisms are found. By cultivation of the blood a great number of bacilli were obtained, longer than those met with during life, and identical with those described by Klebs. Dr. Maragliano maintains that the results of his researches confirm those of Klebs and Eberth, and destroy the objection that the micro-organisms found by those observers were developed only after death.

1564. *Lussana on the Quantitative and Qualitative Secretion of the Bile in the State of Inanition following Division of the Vagi Nerves.*—It is well known that the bile is secreted copiously during prolonged fasting, but attention has been more directed to its quantity rather than to its quality or composition. To determine this latter, Professor Lussana examined the bile in dogs after section of the vagi—that is, in a state of suspension of the digestive functions. After division of these nerves the animals generally die within a few days, and in these the experiments would not be so conclusive, as the bile would still be more or less influenced by the food taken before digestion was suspended, Two dogs, however, survived twenty-four and seventeen days respectively, and Professor Lussana draws his conclusion from the analysis of their bile. During the twenty-four days the first dog lived he was seen sometimes to eat, but the food was quickly vomited, the vomit never being acid. After death, the blood in the vessels was black in colour; in the heart were large firm fibrinous coagula; in the stomach was some food, neutral in reaction; the gastric mucous membrane was pale; the liver did not contain glucose; the gall-bladder was tense and full, containing twenty grammes of dark green bile. The analysis of the bile showed diminution of water and increase of the biliary salts (taurocholate and glycocholate of soda). Hence he concludes that the biliary acids represent excrementitious matters from disassimilation. The abolition of the secretion of the gastric juice is an important fact, and is the more remarkable when the increased secretion of the biliary acids is considered. This tends to confirm the opinion of Bernard as to the influence of the vagi on the secretion of the gastric juice and on gastric digestion, and more particularly as to the special dependence of the secretion of the gastric acid (and not of the pepsin) on the innervation of the vagus, according to the opinion of Inzani and the author. In both dogs, a decoction of the liver was found not to contain glucose. This accords with Bernard's and the author's opinion, that glucose must be considered either as a product of a physiological secretion of the liver, or as an expression of its state of nutrition.

G. D'Arcy Adams, M.D.

1565. *Tchernoguboff on a Case of Absence of the Uterus.*—A woman, aged 24, applied to the author at the Serdobsk Hospital, Russia, stating that she was barren, and that a midwife had detected an abnormal condition of the vagina. She had been married six years, and had frequently submitted to apparently complete coitus, which had always been attended with pain. She was a well-nourished subject, with fully developed breasts and labia. The clitoris was unusually small. The urethra was so much dilated, that the index-finger could readily be introduced into the bladder. The vagina formed a shallow pit. After the most careful digital examination and bimanual palpation through the bladder and rectum, no trace of a uterus could be detected. Sexual desire, menstruation, and vicarious hæmorrhages were all entirely absent in this case.

Alban Doran.

1566. *Goodridge on Cardiac Thrombosis as Occurring in Acute Disease.*—Dr. Goodridge, in the *Practitioner*, June 1883, records three cases of cardiac thrombosis; two of them occurred in the course of acute rheumatism, a disease characterised by an increase in the amount of fibrine in the blood. In one case, death was instantaneous; the patient had an adherent pericardium, together with endocarditis, and on *post mortem* examination it was found that a long firm coagulum of decolorised fibrin extended from the mitral orifice into the aorta. The second case occurred in a man, aged 22, who woke up suddenly from a sleep with a sense of impending death, and died in a few minutes; on examination a long, firm, decolorised fibrinous coagulum was seen occupying the cavity of the right ventricle, and extending thence into the pulmonary artery, blocking it completely. In the third case, death was comparatively slow, dyspnœa being progressive, and showing that the thrombus formed slowly before death. On examination, the right auricle was found to be occupied by an irregularly shaped, colourless, fibrinous mass, completely blocking the tricuspid orifice; a tubular prolongation of the mass extended into the superior vena cava. The cases cited are intended to show that the patients' lives were not brought to a close by cardiac weakness alone, but that there was an abnormal tendency in the blood to the formation of fibrine, and that the fibrinous coagula were formed before death.

1567. *Bristowe on Abdominal Sanguineous Cysts.* Dr. Bristowe, in the *Lancet*, May 1883, p. 763, records two cases of abdominal tumours, one of which occurred in a man aged 28, in whom the swelling reached an enormous size and reduced the patient to an almost hopeless condition. On tapping, Dr. Bristowe drew off a gallon and a half of dark reddish-brown fluid, having the characters of simply altered uncoagulated blood. Two months subsequently the tumour was retapped, but after that it did not fill again, and the patient lived many years. The second case occurred in a man aged 35, who was admitted into St. Thomas's Hospital in February 1879. There was a tumour occupying the lower part of the abdomen, but as to its origin and nature nothing could be decided; it was aspirated, and a few ounces of fluid resembling that of the previous case were drawn off. Subsequently 128 ounces of fluid were drawn off; and again, in May, 86 ounces were removed; he was able to leave the hospital for a few months and then returned to have the tumour tapped. This went on until May 1882, when he was again admitted as he was losing flesh, and on June 24 he died. At the *post mortem* examination, the tumour proved to be a round-celled sarcoma, arising from the tissues in front of the sacrum; there was a central cyst containing about a pint and a half of fluid, but no secondary deposits were discovered in the neighbouring glands or elsewhere. The two cases considered together are instructive, and the paper is well worth a careful perusal.

1568. *Smith on Presence of Bacillus Tuberculosis in an Abscess near the Anus.*—Dr. Smith (*Lancet*, June 1883, p. 1108) gives an account of a man, aged 21, who came under treatment for hæmoptysis and other signs of phthisis. Six months subsequently the patient suffered from an abscess in the neighbourhood of the anus; this was opened, and a quantity of thin curded pus evacuated. A microscopic examination of the fluid revealed the presence of great quantities of well-marked typical tubercle-bacillus.

1569. *Firth on a Peculiar Congenital Condition of the External Ear.*—Dr. Firth, in the *Brit. Med. Jour.*, June 1883, p. 1177, records a case of a peculiar congenital malformation of the external ear in a child 7 months old. It consists of a minute orifice, situated just where the helix of the ear subsides into the general surface of the skin, and about one-eighth of an inch from the edge of the helix. The mother states that, when the child cries, it secretes a drop or two of clear fluid; but, though the orifices are symmetrical on the two sides, it is only the left opening which secretes. It is probably a gland, resembling in structure the lacrymal, and supplied by the same nerve. RICHARD NEALE, M.D.

OTOLOGY.

RECENT PAPERS.

1570. MOOS, S. AND STEINBRÜGGE, H.—On the Combined Occurrence of Rachitic Alterations and Disturbances of Development in the Ears of a Cretin. (*Archives of Otology*, Vol. xi., No. 1.)

1571. MOOS, S. AND STEINBRÜGGE, H.—Hyperostosis and Exostosis, Ankylosis of the Head of the Hammer, Bony Occlusion of the Round Window, and Colloid Degeneration of the Auditory Nerve in the Petrous Bone of an Aged Lunatic affected with Hallucinations. (*Ibid.*)

1572. MOOS, S.—A Case of Double Labyrinthine Affection, with Staggering Gait and Permanent Abolition of Hearing after Mumps. (*Ibid.*)

1573. STEINBRÜGGE, H.—A Case of Diplacusis. (*Ibid.*)

1574. KNAPP, H.—Congenital Fibrous Closure of the Auditory Meatus: Opening Frustrated by Hæmatophilia. (*Ibid.*)

1575. KNAPP, H.—A Case of Transient Poisoning, from the Instillation of a few drops of Atropia into a Healthy Ear-Canal. (*Ibid.*)

1576. MOORE, W. OLIVER.—Acute Otitis Media supervening on Otitis Media Purulenta Chronica, resulting in Necrosis of Temporal, Occipital, and Parietal Bones, with Closure of Lateral Sinus and Abscess of Cerebellum. (*Ibid.*)

1577. MOOS, S.—Double Hearing during the Administration of Iodide of Potassium. (*Ibid.*)

1578. MUNSON, G. S.—A Case of Chronic Suppurative Otitis with Exostosis of the Auditory Canal: Abscess of the Brain: Death: Autopsy. (*Ibid.*)

1579. MOOS, S.—Railroad Accidents in connection with Bad Hearing of Engine-Drivers. (*Archives of Otology*, Vol. xi. No. 2.)

1580. MOOS, S. AND STEINBRÜGGE, H.—On the Formation of a New Membrane in the Drum-cavity, resulting from Hæmorrhagic Pachymeningitis. (*Ibid.*)

1581. BRUNNER, G.—A Case of Complete Unilateral Deafness after Mumps: with Critical Remarks. (*Ibid.*)

1582. BURCKHARDT-MERIAN, ALBERT.—Supplement to Professor Moos and Dr. Steinbrügge's Case. (See above No. 1580, *Ibid.*)

1583. GRAF, F.—On Artificial Drum-Membranes, and especially the Cotton-Pellet. (*Ibid.*)

1584. SCHALLE, R. (the late).—On Aural and Naso-pharyngeal Diseases, and some of their Methods of Treatment. A posthumous paper. (*Ibid.*)

1585. BRANDEIS, R. C.—Two Cases of Tinnitus Aurium caused by Disturbances in the Current of the Cervical Blood-vessels. (*Ibid.*)

1586. BRANDEIS, R. C.—Otitis Media Catarrhalis; Objective Sounds (Spasmodic Contraction of Tubal Muscles?); Nervous Origin; Hysteria. (*Ibid.*)

1587. DOUMERGUE, A.—Contribution to the Study of Auditory Affections in Bright's Disease. (*Thèse de Paris*, 1881, and *Revue Mens. de Laryngol.*, April 1881.)

1588. Baratoux, J.—Otology, Pathology, and General Therapeutics of the Ear. (*Revue Mens. de Laryngol.*, April 1881, and following numbers.)

1589. Champeaux.—Contribution to the Study of the Symptoms, Diagnosis, and Pathogeny of Ménière's Disease. (*Thèse de Paris*, 1881, and *Revue Mens. de Laryngol.*, May 1881.)

1590. Bonillaud.—The Derangements of Progression, Standing, and Equilibration occurring in Experiments on the Semicircular Canals, or in Diseases of these Canals, are not the Effect of these, but result from the Influence which they exert on the Cerebellum. (*Acad. des Sciences*, and *Revue Mens. de Laryngol.*, June 1881.)

1591. Ciniselli.—Calcareous Degeneration of the Annulus Tympanicus. (*Revell Médical*, May 14, 1881; and *Revue Mens. de Laryngol.*, June 1881.)

1592. Gellé.—The Eustachian Tube in Otorrhœa. (*Société de Biologie*, May 14, 1881; and *Revue Mens. de Laryngol.*, June 1881.)

1593. Miot, C.—Nervous Deafness Due to Congestion: Employment of Electricity: Cure. (*Revue Mens. de Laryngol.*, Nov. 1881.)

1594. Miot, C., and Baratoux, J.—Anatomical and Physiological Considerations on the Eustachian Tube. (*Thèse de Paris*, 1881, and *Revue Mens. de Laryngol.*, March 1882.)

1595. Moure, E. J.—A Bead Encysted in the Middle Ear. (*Revue Mens. de Laryngol.*, June 1882.)

1596. Baratoux, J.—On Perforation of the Tympanic Membrane; its Cicatrices and their Treatment. (*Ibid.*, Nov. 1882.)

1597. Rétif, J.—On Insufflation of Air into the Middle Ear. (*Thèse de Paris*, 1882, and *Revue Mens. de Laryngol.*, Nov. 1882.)

1598. Gellé.—On Mono-auricular Audition. (*Trib. Méd.*, Nov. 5, 1882, and *Revue Mens. de Laryngol.*, Dec. 1882.)

1599. Gruber, Jos.—Report of the Diseases of the Ear treated at his Clinique from Jan. 1. to Dec. 31, 1881. (*Revue Mens. de Laryngol.*, &c., Jan. and Feb. 1883.)

1600. Baratoux, J.—On Colour-Hearing. (*Ibid.*, March 1883.)

1601. Ducan, A.—On a little-known Cause of Deafness. (*Revue Mens. de Laryngol.*, Dec. 1882.)

1602. Moure, E. J.—Acute Otitis Media: concomitant Facial Paralysis: Recovery. (*Ibid.*, April 1883.)

1603. Noquet.—Late Hereditary Syphilis; Loss of Substance of the Velum Palati, and Ulceration of the Left Tonsil in a Child of 10 years; Double Otitis Media; Good Effects from Specific Treatment. (*Ibid.*, May 1883.)

1604. Gellé.—On Ménière's Vertigo in its Relation to Lesions of the Oval and Round Windows. (*Ibid.*, June 1883.)

1605. Woakes, E.—The Hygienic Management of the Catarrhally Disposed.

1606. Barr, Thomas.—Report on 1,088 Cases of Ear Disease treated in the Glasgow Western Infirmary. (*Glasgow Med. Journal*, Feb. 1882.)

1607. Theobald, Samuel.—The Use of Constitutional Remedies in the Treatment of Ear-Diseases. (*The Medical News*, Feb. 4 and 18, 1882.)

1608. Moos and Steinbrügge.—Histological and Clinical Report on One Hundred Cases of Polypus of the Ear. (*Centralbl. für die Med. Wiss.*, Feb. 24.)

1609. Burkner.—Sudden Loss of Hearing, occurring in the Course of Mumps. (*Berliner Klin. Wochensch.*, March 26.)

1610. Eitelberg.—The Influence of Treatment of One Ear on the other not under Treatment. (*Zeitschr. für Ohrenheilk.*, Band xii., and *Centralbl. für die Med. Wiss.*, July 14).

1611. Christinneck.—Sarcoma of the Mastoid Process. (*Archiv für Ohrenheilk.*, Band xx., and *Centralbl. für die Med. Wiss.*, July 28.)

1612. Hessler.—Erosion of the Internal Carotid Artery from Caries of the Petrous Bone. (*Arch. für Ohrenheilk.*; and *Deutsche Med. Wochensch.*, Aug. 22)

1613. Moldenhauer.—Removal of a Foreign Body from the Ear by Incision. (*Ibid.*, Aug. 22.)

Art. 1570. *Moos and Steinbrügge on the Ears of a Cretin.*—The pathological condition found in this case (*Archives of Otology*, Vol. xi., No. 1) confirms the authors in their opinion, in opposition to Knapp, that qualitative sensations of sound are perceived by bone-conduction alone.

1572. *Moos and Brunner on Deafness after Mumps.* In Moos's cases the affection was double, in Brunner's one-sided; in both, as usual, the deafness, which was complete, was accompanied by vertigo, but *not* attended by loss of consciousness. It was incurable. Brunner considers it due to an inflammatory excitation of the labyrinth, leading to copious and rapid exudation, without inclination to suppuration.

1574. *Knapp on Congenital Fibrous Closure of the Meatus.*—This case (*ibid.*) is interesting from the operative treatment having been frustrated by the hæmorrhagic diathesis, and from the fact that, after the incision into the obstructing mass, free extravasation of blood occurred through the *incisuræ Santorini* (in the cartilage) into the substance and surroundings of the parotid gland.

1575. *Knapp on Transient Poisoning from the Instillation of Atropia into a Healthy Ear-Canal.*—In this patient (*Ibid.*) the instillation twice of a few drops of a one-half per cent. solution of atropia produced symptoms of belladonna poisoning, which in the course of a few hours passed off of themselves.

1579. *Moos on Railroad Accidents in connection with Bad Hearing of Engine-Drivers.*—Professor Moos (*Archives of Otology*, xi. 2) quotes the opinion of the *Lancet* as to the great importance of perfect hearing in engine-drivers, and the desirability of investigations into this subject in this country, and gives one or two cases in illustration of the importance of the subject.

1583. *Graf on Artificial Drum-membranes.*—The author (*Ibid.*) gives the preference to the cotton-pellet as a general rule, and thinks that it is useful only in cases of large perforations, with a tough (*sic*) mucous membrane of the drum-cavity, where there is but little or no secretion, and great diminution of hearing.

1584. *Schalle on the Treatment of Aural and Naso-Pharyngeal Diseases.*—Professor Moos has edited and written a brief introduction to this interesting and able article, which was found amongst the late Dr. R. Schalle's papers as a manuscript sketch without any heading. We can only draw attention to a few points in it. Voltolini's palate-hook the author has found a great acquisition, as in difficult cases it generally gives a sufficient view. He would, however, reserve it for such cases only. In the majority of cases we attain, he says, our object (posterior rhinoscopy) at once by the dexterous manipulation of the tongue-depressor and the mirror; in the remainder, he directs the patient to gargle with salt and water in such a manner as to wash out his naso-pharynx (for which the author gives instructions), and to practise opposite a looking-glass holding down his tongue with a spoon-handle, and allowing the soft palate to become relaxed. These manipulations, continued for some days or weeks, attain the desired object even in the most unfavour-

able cases (nervousness, abuse of alcohol, and tobacco). In the treatment of chronic naso-pharyngitis the author lays stress on three points. 1. The avoidance of the inhalation of cold and hot air, dust, and smoke; also of the ingestion of very cold or very hot, strongly alcoholic, or highly spiced foods and drinks. The former the author accomplishes by letting the patients wear in each nostril a pellet of purified sheep's wool, which permits free passage to the air, but intercepts all particles of dust, products of combustion, &c. He also employs the wool after intranasal operations. He does not prohibit smoking entirely, as the patients only obey for a short time, and then smoke again more inveterately than before; he rather aims at restricting them gradually to a minimum of smoking. Blowing the smoke through the nose he prohibits, as being specially injurious. Cigarettes he also considers very deleterious. 2. *Gargling* with lukewarm salt and water in such a manner as to wash the naso-pharynx and allow the gargle to escape through the nose. This should at first be done in the recumbent posture. 3. *Insufflations of nitrate of silver* by means of a bent glass tube passed up behind the velum palati. The finely powdered caustic is mixed with calcined magnesia, at first in the proportion of 1 : 30, the strength being gradually increased. The author also gives directions for washing out the frontal, ethmoidal, and sphenoidal sinuses with a weak solution of nitrate of silver. For thorough cleansing of the nostrils, which should be done before insufflation, the author recommends a syringe containing 100 grammes, and armed with an India-rubber tube fitted with an olive-shaped nozzle. He speaks highly of the galvano-cautery, and uses it for destroying adenoid vegetations and swellings of the mucous membrane over the inferior turbinated bones, for the removal of nasal polypi, and occasionally in cases of enlarged tonsils. In the ear he recommends it for the destruction of polypi, and for perforating the membrana tympani in chronic and subacute cases. The author advises waiting three weeks between each cauterisation in cases of adenoid vegetations, as after partial destruction they often undergo atrophy spontaneously. The author describes for this purpose a 'scythe-burner,' introduced through the widest nostril.

1585. *Brandeis on Tinnitus Aurium caused by Disturbances in the Current of the Cervical Blood-vessels.*—Dr. R. C. Brandeis (*ibid*) relates the following cases. Case I.—J. T., aged 9, long troubled with persistent loud pulsating noises in the left ear, had, six months before his visit, been thrown from his pony, after which he complained of pain in the nape of the neck and intense occipital headache. These symptoms subsided under treatment, and a week later he was seized with violent headache in the upper cervical and suboccipital region, and a most distressing noise in the left temple. Both hearing power and ears were found normal. A week after his visit, he was seized with well marked cervical spondylitis, involving the second, third, and fourth cervical vertebræ. A corset and jury-mast with chin support was applied; and, as soon as the head was lifted from the trunk, all the head and ear symptoms ceased spontaneously. Removal of the support caused the tinnitus and headache to return with all their former intensity; they were, however, immediately relieved on its being reapplied. The author attributes the symptoms to a paresis of the vaso-motor nerves controlling the vertebral artery, the consequence of inflammation of the intervertebral discs and the probable affection of the transverse processes of the diseased vertebræ. Case II.—Mrs. McF., aged 54, suffered from distracting rushing noise in the right ear, with headache, and from a fibrous goitre on the right side. Under parenchymatous injections of tincture of iodine weekly, and the internal administration of ten-drop doses of a one-half per cent. solution of fluoric acid, the goitre diminished in size, the headaches disappeared, and the tinnitus almost entirely ceased. The author regards the symptoms in this case as due to the interference with the circulation in the jugular vein produced by the goitre.

1586. *Brandeis on Objective Tinnitus.*—The case recorded by Dr. Brandeis (*ibid.*) is one of crackling objective tinnitus occurring in a hysterical young woman. The noise, which was involuntary, and unaccompanied by any visible movements of the membrana tympani, is attributed by the author to spasmodic action of the levator palati. It is to be noted that perforation of the membrane, which occurred spontaneously, did *not* relieve the noise. There was also some anæsthesia of the auricle and of the side of the head. [Compare a case published by 'Reporter,' *Lancet*, Aug. 7, 1880, occurring in a young woman, and in which the membrane was already perforated.—*Rep.*]

1587. *Doumergue on Ear-affections in Bright's Disease.*—Amongst twenty-seven persons suffering from different forms of Bright's disease (*Thèse de Paris*, 1881), the author found thirteen free from any difficulty in hearing, whilst in fourteen ear-affections were present (either deafness or noise). The author considers them due either to tympanic catarrh, to effusion of blood into the tympanum, or, in cases in which no lesion is appreciable during life, to œdema of the auditory nerve.

1592. *Gellé on the Eustachian Tube in Otorrhœa.*—M. Gellé showed to the *Société de Biologie*, May 14, 1881, sections of the mucous membrane of the Eustachian tube in this disease. The ciliated epithelium had disappeared, and was replaced by permanent epithelium lying on a dermo-papillary tissue.

1595. *Moure on a Bead Encysted in the Middle Ear.*—In a case in which the posterior three-fourths of the membrana tympani were destroyed, the author found (*Rev. Mens. de Laryngologie*, June 1882), in the posterior inferior part of the tympanum a smooth rounded swelling, covered with mucous membrane. Removal of the mucous membrane allowed the point of a probe to sink in to the depth of about a millimètre, and on a subsequent occasion the author convinced himself that this swelling was a bead, and that the probe had entered its hole. No attempts were made at removal, as the author thought it best to leave well alone, there being no inflammatory symptoms.

1596. *Baratoux on Perforations of the Tympanic Membrane: its Cicatrices and their Cure.*—Dr. J. Baratoux (*Rev. Mens. de Laryngologie*, Nov. 1882) describes a case of false membrane extending across the meatus 2 millimètres from the membrana tympani. Removal of a flap by incision showed a white liquid mass, consisting entirely of epithelial cells. After complete removal of the epithelial masses the membrana tympani was found entire, but much indrawn. In lax cicatrices the author has found no benefit from collodion, but recommends the application of a fine galvano-cautery point, and gives a case in which this treatment has been of benefit.

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1601. *Ducan on a little-known Cause of Deafness.*—Dr. A. Ducan (*Rev. Mens. de Laryngologie, &c.*, December 1882), has found a slit-like narrowing of the cartilaginous meatus very common amongst women of the lower classes, at about the menopause. He considers it is caused by the fashion of wearing a handkerchief tied round the head, often with a band of hair lying between it and the ear. In nuns, the ears are also bound down by their headdress. The result of the pressure is that the auricle is gradually flattened against the head, and the tragus applied to the meatus like a lid. This has the effect both of retaining the secretion in the meatus, and of preventing the entrance of waves of sound.

1602. *Moure on Facial Paralysis from Acute Otitis Media ending in Recovery.*—Dr. E. J. Moure (*Rev. Mens. de Laryngologie, &c.*, April 1883), after quoting from Toynbee two cases of facial paralysis occurring in the course of acute otitis media, records the following. The little daughter of Mme. X., aged 6½ years, was seized with pains in the ear; five days later they became more violent, accompanied by discharge from the ear, and on the following morning facial paralysis was seen on the left side. Thirteen days after the first onset, the patient was examined by the author, who found facial paralysis present. The pain had almost entirely ceased and there was an abundant yellow fœtid discharge from the left ear; after cleansing of which a small irregularly shaped perforation was found in the anterior inferior segment. Five days later, under instillations of subacetate of lead, the perforation healed; but, in spite of blistering to the mastoid process and electrisation of the muscles, the paralysis still persisted. Under a continuation of this treatment, combined with Politzer inflations, in two months from the commencement, the paralysis began to diminish, and in another month it had completely disappeared. The author attributes the paralysis to the pressure of the accumulated pus in the middle ear, and to the swelling and hyperæmia of the mucous membrane. Timely paracentesis might in these cases, he considers, avert such a disagreeable concomitant.

1605. *Woakes on the Hygienic Management of the Catarrhally Disposed.*—Dr. Woakes gives some practical hints for the guidance of persons thus affected. In using the morning bath, he recommends that the patient should stand all the time in warm water to a depth of three or four inches, whilst the remainder of the body is being washed with good yellow soap and sponged with nearly cold water. In these persons, the sea-bath should be limited to three to five minutes, and the ears protected with Cousins' ear-protectors. In regard to the clothing of the catarrhal subject, the author recommends that his entire surface should be enveloped in woollen material all the year round. As a rule, three sets of underclothing should be provided. The winter suit should contain a maximum of wool with a minimum of cotton; the reverse holding good in the summer, and an intermediate suit being worn in the spring and early autumn. The author lays down the axiom that during four-fifths of the year in these latitudes the underclothing of every individual should consist mainly of woollen material—*i.e.* in all but the few weeks of summer. Cold arms the author considers a fertile source of chills. If wool cannot be borne next to the skin, he recommends suits of Indian gauze, silk, or wash-leather. The author cautions against thin boots, damp clothes, and excess of zeal in wrapping up the neck when taking exercise. When the person is, however, exposed to draughts, whilst in a passive state as regards exercise (*e.g.* in a railway carriage), it is well to protect the ears and neck against them. The *bedroom* of a catarrhal patient should be warmed by means of a fire, especially if the weather be damp as well as cold, and the body should be rubbed with a dry towel before getting into bed, &c. In regard to *diet*, the author considers that a fundamental error in this respect is the excessive quantity of sugar ingested. He thinks that if a comparison were possible between the diseases prevalent in this country before and after the introduction of sugar from the West Indies, the parallel would tell against the sweet stuffs. All requirements are, he considers, satisfied if meat be taken only twice daily, and in less quantity than it is the usual habit to do. The positive indication for these patients, according to the author, is that they should partake as much as possible of fresh fruit, preferably oranges and lemons, also of such fresh vegetables as greens, celery, lettuces, &c. In regard to wines and spirits, each case must be decided on its own merits. Tobacco-smoking in any form is injurious to catarrhal patients. Exercise the author considers necessary, and he recommends tricycling. A few remarks on the avoidance of ear-picks, &c., and directions for syringing an ear, conclude this paper, which is a chapter out of the author's forthcoming work on 'Catarrh, &c.'

1606. *Barr on* 1088 *Cases of Ear-Disease.*—Besides some carefully compiled tables of these cases, the author (*Glasgow Med. Jour.*, February 1882) gives his experience of paracentesis of the membrana tympani. In cases of purulent, mucous, or serous exudation in the cavity of the tympanum or in the interstices of the layers of the tympanic membrane, the author has found it of greatest value. On the other hand, when no fluid secretion exists, according to the author's experience, cutting operations on the membrana tympani are 'not at all notably successful.' Once he divided the tensor tympani to relieve distressing tinnitus, but without effect. He has never succeeded in retaining a permanent opening in the membrana tympani.

1607. *Theobald on the Constitutional Treatment of Ear-Diseases.*—Dr. Theobald (*The Medical News*, Feb. 4 and 18, 1882), after quoting Wilde's regret, made thirty years ago, that local remedies were too much neglected in the treatment of diseases of the ear in favour of constitutional ones, expresses his opinion that we have now run to the opposite extreme. For his part he has learnt, he says, with each succeeding year of experience, to place a higher estimate on the value of internal medication in diseases of the ear. Mercury the author places at the head of the list; and in chronic or subacute inflammation of the middle ear he prescribes the biniodide of mercury (in doses of from $\frac{1}{48}$ to $\frac{1}{8}$ grain) daily, rendering it soluble by the addition of 2 grains of iodide of potassium to each grain of the mercurial salt. The author combines this, be it noted, with careful local treatment; but he finds that a marked change for the better often occurs when the dose is increased to $\frac{1}{16}$th or perhaps $\frac{1}{12}$th of a grain. Where there is great susceptibility to iodine, he employs the bichloride instead. It is especially in sclerosis that the author has found good effects from mercury. In specific cases, it is of course doubly efficacious.

He also strongly recommends the biniodide in inflammation involving the nervous apparatus of the ear and in Ménière's disease. The same remedy (mercury) is advised by the author in intracranial complications occurring in the course of diseases of the ear, and two cases in exemplification of this are given. In the first, mild delirium and well marked aphasia, occurring after the sudden arrest of a tympanic otorrhœa by powdered alum, subsided under the prolonged administration of small doses of biniodide of mercury. Syphilis was excluded. In the second case, that of a man aged 23, there was pain in the left ear, and after removal of some impacted cerumen the membrane was found opaque, thickened, and sodden in appearance. The author diagnosed chronic catarrh of the middle ear, with an acute attack of inflammation of the membrane or tympanic cavity causing the pain. Five days later the mastoid region became swollen, red, and very sensitive to the touch, the pain at the same time having much increased and being chiefly postaural in situation. A diagnosis of inflammation of the mastoid cells was made, and the patient was ordered 1-16th grain of biniodide of mercury thrice daily, and four leeches were applied beneath the auricle. Two days later the pain had somewhat subsided, but the redness, swelling, and tenderness over the mastoid bone had increased, and there was stiffness of the muscles on the left side of the neck, producing torticollis. Neither Wilde's incision nor paracentesis of the membrana tympani was performed, but a powder containing 4 grains of calomel and 10 grains of rhubarb was ordered for two nights running, and the biniodide to be continued unless salivation returned. Two days later the patient was much better, the torticollis and postaural redness had entirely gone, and the swelling and tenderness had greatly diminished. Another similar powder was ordered, and two days afterwards the mastoid symptoms had all disappeared. A slight relapse occurred subsequently, but yielded to the continued administration of the biniodide, and the patient eventually recovered completely. As regards other remedies, the author employs iodide of potassium in syphilitic and rheumatic cases, chloride of ammonium in catarrh, pyrophosphate of soda (in 10 to 20 grain doses) in furuncular and carbuncular inflammation and in eczema of the auricle. In acute eczema of the auricle, in diffuse and furuncular inflammation of the auditory canal and in simple and complicated otitis media, the author recommends 2 to 4 grains of calomel, combined with scammony and rhubarb, repeated three or four times at intervals of 24 or 48 hours. He has not obtained any decided results from the use of bromide of potassium, hydrobromic acid, or ergot, in tinnitus.

E. Cresswell Baber, M.B.

1608. *Moos and Steinbrügge on One Hundred Cases of Polypus of the Ear.*—Drs. Moos and Steinbrügge (*Centralbl. für die Med. Wiss.*, Feb. 24) refers to 100 cases, of which sixty-six were males, twenty-seven females; of seven the sex was not recorded. As to the causes of the polypoid formation, suppurative inflammation was traced in sixteen as the result of scarlet fever. Single polypi were found in eighty-one cases, multiple in nineteen. Discharge from the ear was wanting in only one instance. The seat of the growth was the outer meatus in twenty-five cases, in the tympanum sixty-eight times. In more than 80 per cent. of the cases the drum was destroyed. Perfect cure was effected in only twenty-nine; relapses took place in twenty-three cases of apparent removal of disease. Complete destruction of the growth by injections was observed in five cases. The polypus in ten instances was coexistent with caries. Four instances, before operation, were complicated with brain-symptoms, which afterwards subsided. Of the histological characters, it was noted that fifty-five consisted of granulations, or round-celled polypi, twenty-seven of angiofibroma, fourteen of pure fibroma, and four of myxoma. The angiofibroma the authors consider to have been developed from the granulation, through obliteration of vessels and deprivation of blood-supply. The pure fibroma they regard as having only an indirect relation to the vascular supply. In ten cases, deposits of cholesteatoma were found in the centre of the tumours. Other histological elements were extravasation of blood, pigmentary metamorphosis, new formations of osseous substance, and cysts. The therapeutic means are, frequent washing of the meatus, and the careful dropping into the ear of solution of acetate of lead twice a day, unless pain be caused by the application.

1609. *Burkner on Sudden Loss of Hearing, occurring in the Course of Mumps.*—Dr. K. Burkner, of Göttingen (*Berliner Klin. Wochensch.*, March 26), relates the following case. C. von R., aged 17, on Dec. 12, 1882, became the subject of mumps (then epidemic). On the 14th he suffered severely from tinnitus aurium, on the right side, and on the 15th found deafness on the same side. Examination of the meatus detected nothing abnormal. On the nights of the 17th and 18th violent vomiting occurred, which had been recognised by Dr. Wiese as a symptom of affection of the labyrinth. In Jan. 1883 the deafness and noises in the ear had not diminished. Dr. Burkner entertained an unfavourable prognosis, but of the result nothing further is stated. The case is related more with reference to indication of labyrinthine affection in such cases, and in illustration thereof Dr. Burkner gives a summary of cases that have been placed on record.

1610. *Eitelberg on the Influence of Treatment of one Ear upon the other not under Treatment.*—Dr. Eitelberg (*Zeitschr. für Ohrenheilk.*, Band xii., and *Centralbl. für die Med. Wiss.*, July 14) submits the following conclusions from his observations. 1. In many cases, the treatment of one organ is attended by improvement in acuteness of perception in the other; the reverse being seldom the case. 2. The greatest difference in respect of exaltation of function on the sound side occurs in cases of purulent inflammation of the tympanum. 3. In affections of both ears, the exclusive treatment of one is often attended with benefit to both. 4. This improvement is not always immediate, but occurs at a later period. 5. In other cases, after a certain time, a decline of the sympathetic improvement takes place. An explanation of this fact is to be found in the observation by Urbantschitsch, that by stimulation of the sensitive fibres of the trigeminus on one side an influence is not only exerted upon the affected side, but is also extended to the other side.

1611. *Christinneck on a Case of Sarcoma of the Mastoid Process.*—Dr. Christinneck describes the following case (*Archiv für Ohrenheilk.*, Band xx., and *Centralbl. für die Med. Wiss.*, July 28). The patient was a child, a year and a half old, who, as the first indication of disease, had left-sided facial paralysis. After some weeks, a swelling appeared over the mastoid process, simultaneously with which

vomiting occurred, and continued for eight days. The child became apathetic and drowsy. The swelling was hemispherical, and presented a feeling of fluctuation. The integuments over the tumour exhibited no change. The meatus auditorius was dry; its superior and posterior wall appeared drawn inwards. An incision was made into the tumour, whence issued a soft yellowish mass, resembling the tissue of infiltrated lymph-gland. The swelling rapidly increased in extent, and, notwithstanding careful dressing with carbolic water, an ichorous ulceration occurred. At a later period paralysis of the upper and lower extremity supervened, and the child died two and a half months from the first appearance of the disease. On *post mortem* examination, the growth was found to be of the size of a man's fist, and had advanced so far forward as to have obliterated the meatus; it had also pierced the cranial bones, so as to come into contact with the temporal lobe of the brain. The squamous portion of the temporal bone, with the mastoid process, and a considerable portion of the parietal bone, had disappeared. A small tumour, of the size of a cherry, was in contact with the pyramid. The cortical substance only of the temporal lobe remained; the white substance had been altogether removed by the tumour. The nature of this growth was that of a round-celled sarcoma, originating probably in the dura mater, or in the external periosteum of the mastoid process.

W. B. KESTEVEN, M.D.

1612. *Hessler on Erosion of the Internal Carotid Artery from Caries of the Petrous Bone.*—Dr. Hessler, of Halle, has written an article in the *Arch. für Ohrenheilkunde* (*Deutsche Med. Wochensch.*, August 22) on erosion of the internal carotid artery in consequence of caries of the petrous bone. He has collected all the cases which he could find, from case-books and *post mortem* records, and has compiled an account of the occurrence and course of this happily rare complication. The intimate connection between the mucous membrane of the middle ear and the dura mater, which is kept up by the tegmen tympani, causes usually a rapid infection of the meninges in otitis and death from meningitis; but if the process in the bone go on longer, some sudden increase of arterial tension, as in coughing or sneezing, may be enough to cause the softened carotid wall to give way and the fatal hæmorrhage to result. It may be considered to have taken place when a thick column of blood spurts from the ear with each pulsation; and although it may be temporarily arrested, it will most likely return and prove fatal. Ligature of the common carotid artery is the only treatment, and even then a return of hæmorrhage may follow the establishment of the collateral circulation.

1613. *Moldenhauer on Removal of a Foreign Body from the Ear by Incision.*—From the *Arch. für Ohrenheilkunde*, the *Deutsche Med. Wochensch.* of August 22 quotes a case related by Dr. Moldenhauer, of Leipzig, in which a stone fixed in the ear of a child, aged 3½, could not be removed by pincers or by the injection of water. Recourse was then had to more active interference; and an incision was made through the cartilage of the ear close to the mastoid process, by means of which the foreign body was removed after a little manipulation. The wound healed quickly, and left no bad effects.

ALICE KER, M.D.

DISEASES OF THE THROAT AND NOSE.

RECENT PAPERS.

1614. GUINIER.—Treatment of Diseases of the Throat and Nose. (*Revue Mens. de Laryngol.*, April 1881.)

1615. RUDOLPHI.—Efficacity of Eucalyptus in Acute Coryza. (*Revista de Med.*, March 5, 1881, and *Ibid.*)

1616. HERING, TH.—On Chronic Pharyngitis in general, and Lateral Pharyngitis in particular. (*Revue Mens. de Largngol.*, May 1882.)

1617. COHEN, J. SOLIS.—Does Excision of the Larynx tend to the Prolongation of Life? (*Trans. of the College of Physicians of Philadelphia*, Vol. vi.)

1618. MOURE.—A Case of Laryngitis with Concomitant Nervous Paralysis. (*Revue de Laryngologie*, June 1883.)

1619. HABSARZT.—The Treatment of Laryngeal Tuberculosis. (*Zeitschrift für Klin. Med.*, Band v., Heft 3, 1883.)

1620. OLIVER.—Fracture of the Larynx by Direct Violence. (*Lancet*, June 30, 1883.)

1621. LANGA.—Isolated Paralysis of the Ary-arytenoid Muscle. (*Revue Mensuelle de Laryngologie*, April 1883.)

1622. GUINIER.—The Part played by the Free Portion of the Epiglottis and the Glosso-epiglottidean Fossæ during Deglutition. (*Ibid.*, June 1883.)

1623. CLADO.—Epithelioma of the Tonsil. (*Gazette des Hôpitaux*, March 22, 1883.)

1624. LINCOLN.—The Results of the Treatment of Naso-Pharyngeal Fibromata. (*Congress of the American Laryngological Association*, May 1883; *New York Med. Record*, June 2, 1883.)

1625. MORGAN.—A Case of Pharyngeal Tumour. (*Ibid.*)

1626. ASCH.—A Case of Sudden Death occurring after Tracheotomy. (*Ibid.*)

1627. DELAVAN.—The Anatomy of the Lacunæ Tonsillarum. (*Ibid.*)

1628. MAJOR.—The Value of Postlaryngeal Papillomata as a means of Diagnosis in Tubercular Disease. (*Ibid.*)

1629. HOOPER.—Experimental Researches on the Tension of the Vocal Bands. (*Ibid.*)

1630. ALLEN.—Asymmetry of the Nasal Chambers without Septal Deviation. (*Ibid.*)

1631. COHEN.—A Case of Thyrotomy for Morbid Growth, with Subsequent Development of Epithelioma in the Cutaneous Cicatrix, but without Involvement of the Interior of the Larynx. (*Ibid.*)

1632. WHISTLER.—Malignant Disease of the Tonsil. (*Med. Times and Gazette*, May, p. 579.)

1633. SMITH.—Three Cases of Successful Removal of Tracheotomy-Tubes. (*Lancet*, June, p. 1083.)

1634. LUBLINSKI.—Syphilitic Stenosis of the Œsophagus. (*Berliner Klin. Wochensch.*, Aug. 20.)

1635. KRISHABER.—Two Cases of Cancer of the Thyroid Body. (*Annales des Mal. de l'Oreille, &c.*, and *Centralbl. für die Med. Wiss.*, Aug. 18.)

1636. CHIARI AND RIEHL.—Lupus Vulgaris of the Larynx. (*Viertelj. für Dermat.*, and *Centralbl. für die Med. Wiss.*, July 14.)

ART. 1615. *Rudolphi on Eucalyptus in Acute Coryza.*—Dr. R. Rudolphi (*Revista de Med.*, March 5, 1881) recommends that a few dried leaves of the eucalyptus should be chewed, and the saliva swallowed. Provided the coryza is acute, it may thus be arrested in less than one hour.

1616. *Hering on Chronic Pharyngitis in general, and on Lateral Pharyngitis in particular.*—Dr. Th. Hering, of Warsaw, describes in detail (*Revue Mens. de Laryngologie*, May 1882) what he terms lateral

pharyngitis—*i.e.* pharyngitis affecting the salpingo-pharyngeal folds. The author recognises two forms of this—1. granular lateral pharyngitis; and 2. hypertrophic lateral pharyngitis. Granular lateral pharyngitis is characterised by a swelling of the salpingo-pharyngeal folds, which are strewn with oval or elongated prominences. The hypertrophic form, on the contrary, is marked by thick, reddish, smooth swellings, which are sometimes seen after the faucial pillars have been drawn aside, and occur either on one or on both sides. They consist of a hypertrophy of the mucous membrane, which forms the continuation of the salpingo-pharyngeal folds. This swelling impedes deglutition, and is much more painful to the touch than those in the granular form. The author considers that in the hypertrophic variety the morbid process commences in inflammation of the posterior pillar of the fauces. In lateral hypertrophic pharyngitis, the patients also often complain of pricking and pain in the ears, and of temporary deafness. In the treatment of the two forms of lateral pharyngitis, the author recommends the following. In acute cases, purgatives and emetics (ipecacuanha) are very efficacious; also ice, externally and internally, and six or eight leeches to the sides of the throat. Hot and highly spiced food is to be avoided, as well as prolonged use of the voice and the employment of tobacco. Dryness of the throat is to be relieved by gargles of bromide of sodium (8 : 400); and in cases of laryngeal implication, the inhalation of steam with or without chloride of ammonium (4 : 800) is recommended. In chronic granular pharyngitis, the author uses the galvanic cautery, or applications of solid nitrate of silver or of chromic acid to each spot. While recommending the galvanic cautery highly in both the forms of lateral pharyngitis, the author warns against the employment of it, unless one be convinced of the symptoms being really maintained by the granules in question.

1617. *Cohen on Excision of the Larynx.*—Dr. J. Solis Cohen (*Trans. of the College of Physicians of Philadelphia*, Vol. vi.) gives a table of sixty-five cases of complete laryngectomy, including and supplementing the tables of Mackenzie, Foulis, Blum, and Bürow. In five of these the larynx was removed for sarcoma, two with exceptional results—viz. one by Bottini, of Turin, in which the patient was reported well more than six years after the operation; and one by Casselli, of Reggio-Emilia, in which the patient was reported well practically two years afterwards. The remaining three cases of sarcoma lived respectively nearly seven, fifteen, and seventeen and a half months after the operation. Of the fifty six cases which were operated on for carcinoma, more than 30 per cent. terminated fatally within eight days, and at the end of six months 62½ per cent. of the total patients operated on for carcinoma were dead. The tables show that during the first few days the danger is from shock or pneumonia, chiefly the latter. After the first fortnight is passed, the life of the patient appears comparatively secure up to the fourth month, when death begins to take place from recurrence. Contrasting the results of laryngectomy with the duration of life after tracheotomy has been performed, in a few cases of carcinoma of the larynx which have been under his own care, the author arrives at the conclusion that excision of the larynx for carcinoma does not tend to the prolongation of life; for, the prolonged existence to the very few seems purchasable only at the sacrifice of the remnants of existence of many others. The greatest good, he considers, to the greatest number appears better secured by dependence on the palliative operation of tracheotomy.

E. Cresswell Baber, M.B.

1618. *Moure on a Case of Laryngitis with Concomitant Nervous Paralysis.*—The patient was a girl of fourteen (*Revue de Laryngologie*, June 1883), who had suffered from previous attacks of aphonia which, however, had yielded to treatment in a month or fortnight. On this occasion the aphonia was persistent, and was accompanied with difficulty in respiration and an aphonic cough. Paralysis of the posterior muscles (ary-arytenoid) was diagnosed; but the case was further complicated by what appeared to be a membranous bridge stretching between the vocal cords in their anterior thirds. As the pharynx and naso-pharynx were also covered by greenish crusts, Dr. Moure attributed the bridge-like membrane to a collection of mucus, the accumulation of which had been favoured by the inactivity of the vocal cords. It was dispersed on the introduction of an electrode in the larynx. Mobility of the cords and improvement of the voice followed the application of the electrode and of chloride of zinc, and the patient was discharged cured.

1620. *Oliver on Fracture of the Larynx by Direct Violence.*—This case is reported in the *Lancet* (June 30, 1883). The injury had resulted from a blow with a piece of wooden rail. The *post mortem* appearances were in every respect those of death by suffocation. The thyroid cartilage, more especially the right half of it, was broken up into many pieces, one of which hung free in the lumen of the tube. Ossific change was very extensive. There were considerable external wounds of the front of the neck. The facts taken together all pointed to fracture by direct violence.

1621. *Langa on Isolated Paralysis of the Ary-arytenoid Muscle.*—Dr. Langa publishes this case (*Revue Mensuelle de Laryngologie*, April 1883), believing it to be interesting because of the resistance of the paralysis to internal electrisation, and also because of the gradual improvement of the voice with the equally progressive diminution of the glottic triangle, which confirms his opinion that aphonia is absolute in complete paralysis of the arytenoid muscle, and the voice hoarse in paresia. He goes further, and says that, if there exist a single case in which aphonia is occasioned by isolated paralysis of the ary-arytenoid muscle, this case alone would be sufficient to prove that this symptom may be the result of the want of action of this single muscle, and we might then conclude that, when the muscle is completely paralysed, aphonia should be the rule. A lady, 23 years old, suffered from complete aphonia, and had been subject to similar attacks since the age of 16. She was of a very nervous temperament, but did not suffer from hysterical attacks. On laryngoscopic examination, the vocal cords, when E was sounded, came into contact in their anterior three-fourths only, but remained apart at their posterior fourth. Dr. Moure diagnosed a complete and isolated paralysis of the ary-arytenoid muscle. As bromide of potassium and external application of electricity failed to relieve the symptoms, he practised direct electrisation of the paralysed muscle. A sensible improvement in the voice followed, and the space between the posterior three-fourths of the vocal cords became less. When the patient was seen eight days later, the paralysis was not so complete

the anterior angle having become more acute; the voice was also better, but did not regain its normal sound until two more intralaryngeal faradisations had been practised. The patient remains well.

1622. *Guinier on the part played by the Free Portion of the Epiglottis and the Glosso-epiglottidean Fossæ during Deglutition.*—The author's conclusions (*Revue Mensuelle de Laryngologie*, June 1883) on this subject are as follows. 1. The free portion of the epiglottis acts as a guard to the larynx during mastication of a mouthful of food. 2. The glosso-epiglottidean fossæ are the reservoirs ready to receive the mass of food preparatory to its being swallowed. 3. Deglutition of food only begins at the pharyngo-epiglottidean entrance after it has undergone the action of the tongue, of the hard and soft palate, and of the pillars of the fauces. 4. The mechanism of mastication consists of—*a.* the trituration of the food; *b.* its conversion into a bolus by trituration and salivation; *c.* its passage into the glosso-epiglottidean fossæ by the combined action of the tongue, the hard and soft palate, and the pillars of the fauces; *d.* its accumulation in the glosso-epiglottidean reservoirs, preparatory to the single act of deglutition by which it is forced down into the deeper part of the œsophagus.

1623. *Clado on Epithelioma of the Tonsil.*—This case is contributed to the *Gazette des Hôpitaux*, March 22, 1883. The patient was a man 43 years old. M. Polaillon first tied the external carotid with catgut, and then made a curved incision from the left labial commissure to join the incision of the ligature near the angle of the jaw. The inferior flap was dissected down to the bone, exposing the jaw. In spite of the ligature of the carotid artery, the arteries bled abundantly. The lower left lateral incisor was extracted, and the jaw divided by a chain-saw, first at this spot and then through the middle of the ascending ramus. The piece of bone having been removed, M. Polaillon thrust a bent trocar through the floor of the mouth, making it penetrate the skin externally a little above the greater cornu of the hyoid bone. A platinum wire was introduced in the tube of the trocar and the latter pulled out, the wire being arranged in such a manner as to form a loop which embraced the posterior third of the left half of the tongue and the floor of the mouth, as far as the anterior section of the maxillary bone. The wire having been adapted to the galvano-cautery and put in communication with the battery, all these tissues were cut. Another loop was arranged in the same manner to cut the tissues beneath the tonsil from the base of the tongue to the pharynx, while a third wire placed behind the tonsil cut the wall of the pharynx. The left half of the soft palate was removed with the thermo-cautery. The vast wound was cauterised, and the few bleeding arteries were ligatured; the tissues of the cheek were sutured. No drainage-tube was inserted. The operation lasted 1¼ hours. The patient was fed by an India-rubber tube, and left the hospital well one month afterwards.

1624. *Lincoln on the Results of the Treatment of Naso-Pharyngeal Fibromata, with a Demonstration of Successful Cases, together with a Table of Seventy-four Operations by Different Surgeons.*—This paper * was read before the Congress of the American Laryngological Association, May 22, 1883. Of the operations involving section of bone there were thirty-nine, performed upon twenty-eight patients. In fourteen, recurrence took place within a year; in fourteen, no recurrence was reported; in thirteen, no record had been obtainable since the operation; in eight, death was attributable to the operation; in three, the operation nearly proved fatal. Removal by knife, scissors, forceps, &c., was performed seven times upon seven patients. There were no recurrences; in five cases there was no subsequent record; one case was under observation one year or more subsequent to the operation without recurrence. Removal by the écraseur or ligature was performed twelve times upon eleven patients. There were six recurrences within one year; four were under observation for one year or more without recurrence; and of two there was no record subsequent to the operation. The number of cases treated by injections and cauterisations were two; of these there was one recurrence within one year, and of the other case there was no record subsequent to the operation. Removal by electrolysis took place in three cases, with one recurrence within the year; of the other two, there was no record. In eleven operations performed on ten patients, the galvano-cautery écraseur was used; there were three recurrences within one year; six were under observation for one year or more without recurrence; there were no fatal cases; in two there was no record. Dr. Lincoln also reported a case where he removed one of these growths with the galvano-cautery écraseur, and subsequently destroyed the stump by the galvano-cautery. He passed a loop of platinum wire through the nostril and behind the tumour, after which the patient was etherised, the battery attached, the pedicle severed, and the tumour removed through the mouth. No trace of the growth remained five months after the operation.

1625. *Morgan on a Case of Pharyngeal Tumour.*—The tumour (pedunculated sarcoma) was 2¼ inches in its lesser, 2¾ in its greater circumference. Its pedicle was ¼ inch long. This could be easily grasped between the tips of the middle and index fingers, and in this way the tumour was twisted from its attachment. Dr. Morgan thought the opinion that purely pharyngeal tumours are rare was erroneous. He had found sixty-one reported cases during a period of seventy-one years, which originated within the pharynx or extended into the inferior pharynx. Of the sixty-one cases, fourteen were sarcomata and ten fibromata. [The reporter removed a similar growth from the pharynx a short time ago. It had a similar pedicle, and was readily twisted off from its attachments by means of forceps introduced behind the soft palate.—*Rep.*]

1626. *Asch on a Case of Sudden Death occurring after Tracheotomy.*—In this case, the patient was progressing favourably, but two days after the operation he suddenly fainted, then rallied, but soon afterwards fell into a state of collapse and died within a few minutes. At the necropsy, nothing was found to account for the sudden death.

1627. *Delavan on the Anatomy of the Lacunæ Tonsillarum.*—The author directed attention to two special points: 1. the existence of a large single cavity in the interior of each tonsil, which includes several follicular folds and procures their common discharge at the periphery; by this arrangement the actual superficial extent of the tonsil is increased; 2. the unusual indestructibility of the

* This and the following seven papers were read before the Congress of the American Laryngological Association, held at New York, May 1883. Reference to them will be found in the *New York Medical Record*, June 2, 1883

attenuated mucous membrane in the depth of these large lacunæ.

1628. *Major on the Value of Postlaryngeal Papillomata as a Means of Diagnosis in Tubercular Disease.*—Dr. Major discussed two varieties of these—the velvety, and the filamentous, or feathery, probably two degrees of the same disease. The author related several cases in which, from these growths, he had diagnosed tubercular disease. In the discussion that followed, Dr. Asch said that he had often seen this peculiar appearance in the larynx in cases of tuberculosis, but did not regard it as absolutely diagnostic, as he had seen it occur in other cases as well. The author agreed that where the velvety appearance existed there was not necessarily actual pulmonary complication, but he had always found tubercular tendency and tuberculosis in the family. As far as he had observed, after the filamentous growths had appeared, recovery had not taken place.

1629. *Hooper on Experimental Researches on the Tension of the Vocal Bands.*—Dr. Hooper believed that the following facts had been established by a series of experiments made by him in conjunction with Professor Bowditch. With high pressure, the cricoid cartilage invariably moved more than the thyroid; and with high pressure after section of the muscles, both cartilages moved upward more freely, but the stretching of the vocal bands was less. Air escaping from the lungs produced decided upward movement of the cricoid cartilage in addition to the general rise of the larynx, the upward movement increasing in proportion to the force with which the air was expelled from the chest. The general conclusions were these. The cricoid cartilage is the most movable part of the laryngo-tracheal tract; the crico-thyroid muscle should be described as arising from the thyroid cartilage, and inserted into, and giving motion to the cricoid; the air-blast is a direct and important longitudinal tensor of the vocal bands.

1630. *Allen on Asymmetry of the Nasal Chambers without Septal Deviation.*—Dr. Allen believed that a difference in the diameter of the posterior nares would be found to exist quite generally. He had found corresponding to it an asymmetry of the parietal protuberances, and this might perhaps be one means by which an external examination of the head might lead to the inference that the nasal passages were deformed.

1631. *Cohen on a Case of Thyrotomy for Morbid Growth; with Subsequent Development of Epithelioma in the Cutaneous Cicatrix, but without Involvement of the Interior of the Larynx.*—The patient, 63 years old, had suffered from hoarseness for two years, and the general health was much impaired. Dr. Cohen found and removed the laryngeal growth, which on microscopical examination was reported to be papillomatous. Two years after the operation, a small soft nodule in the skin appeared, over the right wing of the thyroid cartilage, but not attached to the cartilage. This was removed, and found to be a specimen of tubular epithelioma. Ten weeks later, another nodule appeared over the left wing of the thyroid cartilage, and was attached to the muscle below; this was also removed, and found to be epitheliomatous. Dr. Cohen removed all the skin in the neighbourhood which was infiltrated with epithelioma, and filled the space by making a transplantation of flaps from the upper part of the chest. The case did well for some time, but eventually proved fatal. Dr. Cohen looked upon it as epithelioma induced in the cicatrix by irritation of the collar. W. J. Walsham.

1632. *Whistler on Malignant Disease of the Tonsil.*—Dr. MacNeill Whistler, in the *Med. Times and Gazette*, May 1883, p. 579, gives an interesting article on malignant disease of the tonsil, and, as it is rare for cancer to originate in the tonsil, the author has communicated the case of a man, aged 44, who applied to him for relief from a swelling on the right side of the pharynx, which had been noticed by the patient for about six months. After trial, with inhalations and administration of drugs, it was decided to remove the growth by the écraseur. This was done, and the patient had relief for about eight weeks. (The growth, when examined, was found to be a typical carcinoma). The man returned after eight weeks, complaining of heat and itching at the seat of the operation, and on examination it was seen that there was a roughness, like large granulations, springing from the tonsillar space. Local applications were repeatedly made, but nothing stopped the growth, and at last a second operation was performed by Mr. Treves. This time the right common carotid artery was ligatured, and the diseased mass removed by operating through the mouth with the galvano-cautery. The patient recovered from the operation, but the growth rapidly returned, and, though the patient was relieved from urgent symptoms for a time, nothing stopped the onward progress of the tumour. In these cases Dr. Whistler suggests that, if urgent symptoms can be relieved and ease from suffering given for a time, some operation is desirable; but, as a rule, palliative measures are the only ones to be resorted to, and, when suffocation seems imminent, tracheotomy should take the place of all other operative procedures.

1633. *Smith on Three Cases of Successful Removal of Tracheotomy-Tubes.*—Mr. H. Smith, in the *Lancet*, June 1883, p. 1083, records three cases which came under his care during the time when he was house surgeon at Great Ormond Street Hospital for Children. In each case, tracheotomy had been performed some months previously; but a tube had been retained in the wound, as it was considered dangerous to allow the opening to heal. Mr. Smith points out the necessity of dispensing with the tube as early as possible, in cases where the operation is performed for temporary laryngeal obstruction. One reason is that, if children be sent home and entrusted to the care of inexperienced people, they may suddenly have the tube dislodged, and a sudden attack of dyspnœa coming on would cause alarm to friends, and danger to the patient. Also a chronic bronchial catarrh is often set up, owing to the air not being properly filtered by the nose and mouth before it enters the lungs. Fear is one difficulty in the early treatment of these cases; as long as the tube is in, the children breathe easily; but when it is withdrawn, the slightest effort, or the least tendency to spasm, causes them alarm, and it is only by training the child early to do without the tube, aided by firmness and kindness, that one can dispense with its use. If a tube have been in a long while, the usual rhythm of the muscles of the larynx is disturbed, and it is necessary to exercise these muscles in the early days, to prevent them from losing their accustomed mode of action. Richard Neale, M.D.

1634. *Lublinski on Syphilitic Stenosis of the Œsophagus.*—Notices of the occurrence of this

affection are to be found in the old writers, *e.g.* Astruc, Carmichael, Von Ruysch, Haller, and Severino. Their accounts, however, were received with mistrust, so that until lately no other cases were recorded. Virchow has recorded three cases, Wilks one, and Klob one. Dr. W. Lublinski (*Berliner Klin. Wochensch.*, Aug. 20) places on record two more instances, not, however, verified by *post mortem* examination. 1. A man, aged 29, was admitted into hospital in Nov. 1880, suffering from difficulty and pain in swallowing. There was no history of local lesion, nor was the dysphagia spasmodic. The larynx and pharynx, as far as could be seen, were healthy, except that on the right side the uvula was drawn aside by an old cicatrix. Examination of the œsophagus was made by means of a sound, which passed as far as the level of the sixth dorsal vertebra, where it met with obstruction, which was not insurmountable. A moderately thin bougie passed, producing to the touch the sense of roughness on its withdrawal. In point of diagnosis, the patient's age excluded the probability of cancer, whilst the occurrence of a chancre ten years before, and the present existence of psoriasis of the hands, indicated the syphilitic origin of the affection. Iodide of potassium was administered in full doses, and in a few weeks a sound, No. 8, could be passed, and by March 1881 all treatment was discontinued. 2. The second case was that of a man, aged 54, who came under treatment for pain in deglutition, which had prevented his swallowing other than finely pounded food for eight weeks previously. At the side of the tongue, near its apex, was a tumour of the size of a bean, with a rough ulcerated surface. The submaxillary glands were slightly enlarged. The pharynx appeared normal, and the larynx was unaffected. On attempting to pass a sound, it met with an obstacle at about the level of the fifth dorsal vertebra. A thinner instrument could be passed, attended, however, with the sensation as of a rough grating. The patient had a cachectic aspect, but nothing abnormal was detected in important organs. At the age of 22 years he had suffered from syphilis, but had since that period been free from symptoms of the disease. A gummatous humour existed on the tongue. Iodide of potassium was taken freely, under the influence of which the tumour decreased. A bougie was also passed daily. The stricture gradually diminished, until in about five months he could swallow solid food. The patient was instructed to use the sound himself at regular periods, in order to prevent a recurrence of the stenosis. The author enters at considerable length into the literary history of this malady, its pathology, and therapeutics.

1635. *Krishaber on Two Cases of Cancer of the Thyroid Body.*—Herr Krishaber relates (*Ann. des Mal. de l'Oreille*, March 1883, and *Centralbl. für die Med. Wiss.*, Aug. 18) two examples of this rare form of cancer. One was that of a man, aged 68, who for six years had suffered deafness on one side. During the same period he had experienced pains in the larynx, with loss of voice. Laryngoscopic examination detected on both vocal cords cancerous growths, which were removed by galvanic cautery. Cough, with sanguineous expectoration, occurred, but neither dyspnœa nor dysphagia was present. After a time a sense of suffocation came on, for which laryngotomy was performed, and arsenic was administered. Hæmorrhage commenced from the cannula. It was found that the tumour was breaking up. The hæmorrhage was stayed, and the patient held his ground, but in about six months another tumour formed, and was attended with severe hæmorrhage, which was arrested by perchloride of iron. This growth perforated the trachea. A long cannula was introduced. Respiration remained unaffected, and the patient showed no sign of a cachexia. The tumour had reached to the level of the vocal cords. The pharynx and œsophagus remained intact. [The further result is not stated.—*Rep.*] The second case was that of a lady, aged 50, who suffered from cancer of the larynx and œsophagus, and in whom, after the operation of tracheotomy, the disease extended to the thyroid body, attended with an ulceration, from which a sanguineous fluid discharge occurred, after which the patient lived only six months.

1636. *Chiari and Riehl on Lupus Vulgaris of the Larynx.*—Chiari and Riehl (*Viertelj. für Dermatol.*, and *Centralbl. für die Med. Wiss.*, July 14) thus describe this form of disease of the larynx. It begins with an excrescence varying from the size of a millet to that of a hemp-seed, more or less granular, either singly or in groups, upon hyperæmic mucous membrane. This group spreads to adjacent parts, so as to give sometimes the appearance of thickened membrane, in some cases becoming rugged uneven patches rising above the surface. These disappear either by exfoliation or by ulceration. After a while, fresh reddish-brown lupus-nodules form in the cicatrices. These are most frequently seen on the epiglottis, next on the arytenoid folds, and lastly on the vocal cords. The cartilages are seldom affected. The diagnosis from syphilis is not easy, but the authors note that the latter attacks several parts, whereas lupus is a local disease. Lupus ulcerations show irregular, soft, œdematous edges, and are distinctly different from syphilitic ulcers.

W. B. KESTEVEN, M.D.

REVIEWS.

ARTICLE 1637.

Clinical Chemistry: an Account of the Analysis of Blood, Urine, Morbid Products, &c., with an Explanation of some of the Chemical Changes that occur in the Body in Disease. By CHARLES HENRY RALFE, M.A., M.D. (Cantab.). London: Cassell & Co. 1883.

THIS small volume has been written to meet an evident want, and is admirable both in conception and in execution. Dr. Ralfe's acquaintance with clinical chemistry has been gained not only by original research but in teaching, and his experience as a teacher is shown in every page. The first two chapters treat of the chemical constitution and affinities of the organic and inorganic constituents of the animal body. The third chapter opens with a discussion of the chemical and physical properties of normal blood, and full directions are given for its examination at the bedside; the toxic conditions are also shortly described, but the very immature condition of our knowledge in this department does not permit the writer to enter into much detail in a book intended for the use of students. Chapter IV. contains a very admirable account of the morbid conditions of the urine, as well as practical directions for its examination: these are more accurate and exhaustive than those of any manual for the clinical examination of the urine with which we are acquainted. The much disputed question of the im-

portance of uric acid in the metabolic processes of the body is ably discussed, and the whole theory of lithæmia is reviewed in the light of recent researches. Albuminous bodies in the urine are also thoroughly described and compared; the various tests which have recently come into vogue are explained, and methods are also given for the recognition and estimation of peptones; the occurrence of these latter bodies in urine is a subject of some importance, which yet requires to be worked out. A chapter is also devoted to the morbid conditions of the digestive secretions, and in it we notice an excellent account of the chemical processes of digestion, directions for the detection of poisons in vomit, and a section on the theory of diabetes, in which the views of various observers are detailed, though those of Dr. Pavy receive the greatest amount of support. The last chapter, on morbid products, has probably cost a great deal of labour, and contains a mass of material that is not easily to be found brought together in any systematic manner in any other work. The origin and composition of urinary calculi of course take up a good deal of space, and Dr. Ralfe again puts forward his views on the solution of calculi in the bladder, and supports them by quoting several cases in abstract. The sections on lardaceous, and on mucoid and colloid degeneration, contain much that is new to our text-books. Finally, we may observe that the book will not only be useful to the student, but instructive also to his teacher, and that observers who are desirous of undertaking original inquiries will find that the book abounds in hints for lines of research.

ARTICLE 1638.

Surgical Cases and Essays. By RUSHTON PARKER, B.S., F.R.C.S., Professor of Surgery in University College, Liverpool. Liverpool: Adam Holden. 1883.

THE most important section of this volume is that which deals with the subject of abdominal hernia. Mr. Parker has done good service in insisting on the necessity for an intelligent treatment of cases after the strangulation has been cured or removed, though he has perhaps a little weakened his case by the use of language which, taken literally, must be admitted to go a little too far. This, however, is the only fault we have to find with a really admirable essay. After protesting that the symptoms of complete intestinal obstruction have been 'specialised' and brought to be regarded as the symptoms of hernia, Mr. Parker proceeds to say that 'a generalisation of the symptoms in all kinds and every degree of intestinal obstruction, mechanical and functional, very much facilitates both treatment and diagnosis.' The vomiting and griping which are among the most distressing symptoms of complete blocking of the intestinal canal, whether from hernia or from other causes, are, he contends, in great part maintained, if not set up, by food, by enemata, and by rectal examinations. There is a 'functional laming' of the intestine which persists after the reduction of a hernia, and which forms the most important element in other kinds of obstruction, and the great aim of the essay appears to be to direct attention to the proper treatment of this functional laming; this may be summed up in the phrase 'functional rest,' and to attain this, fasting is the first essential, and opium is the great auxiliary. Though we do not remember to have before met with so full and distinct an enunciation of it in print, this doctrine is not new, and there is at least one eminent clinical teacher in London who is fond of repeating the paradoxical aphorism, 'In intestinal obstruction opium is the best purgative.' But opium alone will not suffice to bring about the necessary rest and cessation of peristalsis; food must also be withdrawn, and enemata, whether purgative or alimentary, must be interdicted. It is here, we think, that Mr. Parker has been betrayed into a certain exaggeration; rigid withdrawal of all nourishment can only apply to a certain class of cases, to those, namely, where the laming is only, or at least in great part, functional, and not structural, and is evidently inapplicable in its entirety to cases of chronic intestinal disease such as cancer. But a good rule of practice is laid down in the preface; 'any pains in the belly may require opium, and most, in addition, the restriction of food.'

The author passes on to discuss omental hernia, and somewhat severely criticises Mr. Holmes, because he has expressed the belief that strangulation of omentum can produce symptoms identical in kind with those of strangulated bowel. Mr. Parker, of course, admits that the symptoms do occur, but denies that they are produced by strangulation of omentum; he contends that they are due to obstruction of the intestine by the dragging of the irreducible omentum, or to inflammation of the omental hernia and peritonitis. If the ligature of omentum by the surgeon produce no symptom of strangulation, how comes it that the comparatively slack constriction of a hernial neck can do so? The only answer which can be made to this argument is, that the comparatively slack constriction causes irritation of the nerves and of the peritoneum, whereas a tight ligature applied by the surgeon prevents, by cutting off the offending part from all connection with the nervous centres, the reflex disturbances which may be set up where the constriction is not sufficiently tight to destroy nervous conductivity. When Mr. Parker proceeds to argue at some length that the collapse following on perforation of the bowel is not due to the mere perforation, but to the consequent fæcal extravasation, he seems to set up an adversary in order to have the pleasure of knocking him down; but he makes an important point when he observes, with reference to gangrene after relief of strangulation, 'intraperitoneal effusion is, if copious, always promptly followed by collapse; while, if slight and gradual, the collapse may be so late and so gradual as to be merged in the signs of "death by exhaustion."'

In a concluding chapter, Mr. Parker strongly advocates the combination of herniotomy for strangulation with firm occlusion of the sac by ligature of the peritoneal lining; he strips up 'the peritoneal layer until the inside of the abdominal wall is reached,' and applies a ligature as high up as possible. Mr. Parker speaks with great confidence of this method, but his cases appear to be as yet too few to be quite convincing to surgeons in general; of this fact nobody probably is better aware than Mr. Parker himself.

ARTICLE 1639.

On the Cause and Treatment of Phthisis. By H. ARMSTRONG RAWLINS, M.R.C.P., &c.

IT is seldom now-a-days that an author has the courage and assurance to put forward such a work

as the above, which, in addition to being entirely opposed to all that is known of physiology and pathology, contains some curious reasoning. We are informed that the descent of the diaphragm creates a vacuum at each inspiration, which in healthy people is filled in by the expansion of the lungs by blood and air; but that, owing to the consumptive possessing less than the proper amount of the nutritive fluid, he fails to accomplish this, and a vacuum must remain. 'In the endeavour to fill this vacuum —an impossible task—blood (the nuclei of tubercles) is thrown out. The blood in this case is divided inside the vessels into *separate sedentary portions*, like quicksilver in a barometer, when a portion of it is lost. These separate quantities are exposed to the action of the atmosphere, from its passing through the tissues as thoroughly as if the blood were outside the vessel, and therefore there is nothing to prevent its coagulating.'

The author is nearer the mark when he attributes the flattening of the walls and retraction of the intercostal spaces to atmospheric pressure, though he apparently omits all reference to adhesions of the pleura, so common in phthisis; and he then passes on to examine the influence of the vacuum on the circulation and skin, and finds that in both systems elasticity is entirely lost and must be supplied by artificial means. He asks, 'What is the difference between the drowning man and the consumptive one? The one cannot get the air to the blood, the other cannot get the blood to the air.' And he informs us that bandaging the extremities will assist the latter as much as the life-belt would the former. This is the keystone of Dr. Rawlins' treatment. He bandages the extremities, and he places the patient in a double air-proof dress and inflates the space between the two layers, and thus brings pressure to bear on the skin and superficial veins, and the result is marvellous; for, on lying down, the circulation and respiration are greatly quickened and the whole amount of blood saturated with oxygen, a condition in which 'our internal living assailants,' to wit, the bacteria, bacilli, and micrococci, and other organisms, cannot exist. The other means which Dr. Rawlins advocates is a large supply of liquid nourishment to fill the veins.

The above extracts will give some idea of the author's views, which, if they have no other recommendation, show a certain amount of ingenuity; but the whole pamphlet abounds in such extraordinary statements, and shows such entire disregard of modern knowledge, that one imagines that it is intended rather to amuse than to instruct its readers.

C. THEODORE WILLIAMS, M.D.

ARTICLE 1640.

Treatment of Empyema. By A. T. CABOT, A.M., M.D. Cambridge, U.S.A. 1883.

IN this pamphlet, Dr. Cabot discusses the best methods of operative treatment, and deals with the question of aiding the compressed lung to expand after the removal of the fluid. He argues that, as there are two avenues for the returning air to reach the interior of the chest, the bronchus and the puncture-opening, the object should be to partially obstruct the latter and throw all the air-pressure on the former, and thus bring about the dilatation of the lung through the efforts of inspiration.

He advises the following treatment of the pleural opening. 'The tubes, of which I generally use two, side by side, are arranged so that they barely project within the chest-wall, and the outer ends, after being securely fastened with safety-pins and adhesive plaister, are cut off as close to the skin as possible. A handful of loose gauze wrung out in an antiseptic solution is placed around and over them, and over this a piece of mackintosh large enough to project in every direction beyond the gauze beneath it. Over this again are placed many (twelve to fifteen) layers of dry gauze, and lastly, a sheet of cotton-batting to provide for equal pressure. This whole dressing is held in place by a gauze or flannel bandaging, some of the turns of which should go over the shoulder to prevent its slipping down.

'The loose gauze next the tube catches and holds the discharge, which in a favourable case is reduced to almost nothing after the third or fourth dressing, and soon becomes serous.'

Dr. Cabot claims for this dressing, with its covering of mackintosh, impervious to the air, the action of a valve through which the air driven out of the chest by cough escapes, but which opposes its re-entry.

Dr. Cabot gives a table of fourteen cases of empyema treated in this way, of whom three died, two of phthisis, and eleven recovered. In all the successful cases the effusion was of recent origin, except one of three months' standing; and in all, the lungs are stated to have expanded fairly, the tubes being removed, on an average, on the twenty-fourth day after insertion.

The author objects to the use of injections generally, and especially so to that of carbolic acid, which he finds to give rise to poisoning; but he advocates a solution of liquor sodæ chlorinatæ (one part to twelve or fifteen of water) if the pleural discharge be fœtid.

For the point of puncture, he selects the seventh or eighth intercostal space in front of the latissimus dorsi muscle, and for exploration he uses a special form of grooved needle, which prevents the skin from closing too rapidly, and, moreover, acts as a director for the use of the knife, if desirable.

The results of Dr. Cabot's operations seem encouraging, but it should be borne in mind that more than half his successful cases were children, who are notoriously favourable examples, and in the others, with one exception, the effusion was of short standing.

Doubtless the pressure which the author kept up by means of the dressing and bandages tended to help the partial collapse of the chest-wall, and thus to reduce the pleural cavity.

C. THEODORE WILLIAMS, M.D.

ARTICLE 1641.

Elements of Surgical Pathology. By AUGUSTUS J. PEPPER, M.S., M.B.Lond., F.R.C.S.Eng., Fellow of University College, London; Surgeon to St. Mary's Hospital, and Teacher of Practical and Operative Surgery at the Medical School. London: Cassell & Co. 1883.

THERE is always room on the student's shelves for a good manual, although elementary works are very abundant in these days; therefore the student will be a gainer by the addition of Mr. Pepper's *Elements* to his library. It is written well up to the standard of the latest pathological knowledge, whilst all intricate unsettled questions are excluded, and the

strictly surgical scope of the work is never forgotten by the author. Great prominence is given to diseases of the bones and joints, and to the pathology of the pelvic viscera; and special chapters are devoted to lupus, strangulated hernia, ulcers of the anus and rectum, spina bifida, and other conditions needing surgical art, and therefore demanding scientific knowledge on the part of the surgeon. The chapters on tumours are written in a clear and readable style, and Mr. Pepper has done well in not allowing this subject too great prominence. In his descriptions of some of the more malignant new growths, he has been careful to lead up to the actual morbid appearances through some reference to the natural tissues which are counterfeited by such growths. Histology is better taught at the metropolitan schools of medicine than it was ten years ago, but 'no pathology before histology' is a principle that every student should be made to understand; and it is in teaching the characters of sarcoma and carcinoma that this principle must never be forgotten. The illustrations of microscopic appearances are somewhat unequal, but, for the most part, very good; the woodcuts representing diseases of bones and joints, and certain soft structures are of a high order of excellence and reflect great credit on the artist, M. Berjeau.

ALBAN DORAN.

ARTICLE 1642.

A Synoptical Guide to the Study of Obstetrics. By ROBERT BARNES, M.D., Obstetric Physician and Lecturer in Obstetrics to St. George's Hospital. London: Smith, Elder, & Co. 1883.

THE author, in his preface, tells us that this synopsis will prove valuable to the student who cannot attend systematic lectures. We can equally affirm that it will also prove valuable to him who has attended a course of lectures upon obstetrics, but who, at the time, has failed utterly to appreciate the importance of the subject as regards its influence upon his success in practice. To such, this exhaustive, yet concise synopsis will indeed serve as a map to show the extent and subdivisions of the territory through which he has to travel. It will tell the student what to seek in the text-book he may select. It will further serve him as an *aide mémoire*, to revise and refresh his knowledge when preparing for class or other examinations. He may at a glance discover the points upon which his knowledge is defective. By interleaving this synopsis, he may increase its value by the addition of notes taken in class and in reading, and by his own reflections.

The name upon the title-page is a sufficient guarantee that the work is clearly and concisely written. It travels over the whole realm of obstetrics, including the anatomy and physiology, as well as the pathology of pregnancy. This latter the author regards merely as physiology working under difficulties. The section on the Diseases of Pregnancy, we venture to think, will prove of great interest to the practitioner, and will assist him materially in solving some of the difficult problems constantly presented to his notice in the daily routine of practice, such as convulsions and abortion.

The concluding section upon 'The Operations,' with the indications for, and mode of conducting them, forms an appropriate termination to a work, which is distinguished throughout by its thoroughness and comprehensive character.

ARTHUR W. EDIS, M.D.

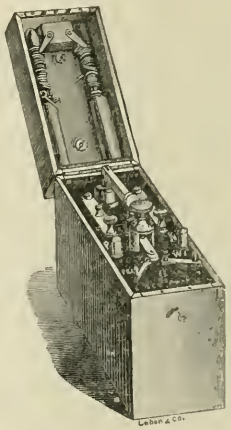
NEW INVENTIONS.

ARTICLE 1643.

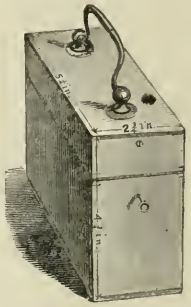
IMPROVED PORTABLE GALVANIC APPARATUS.

Devised by MR. BUTLER-SMYTHE.

THIS battery is a modification of 'Grunt's. It has been designed for use in the treatment of diseases of women, and is of such a convenient size that it can be carried in the hand, or in Greenhalgh's and



Barnes' obstetric bags. It measures 5¼ inches in length, 2¾ inches in width, and 4¾ inches in height, and possesses the following advantages. It is really portable, very powerful, not liable to get out of order, and always available for use. The cell of



the battery is almost watertight and no corrosive liquid can escape unless the apparatus is turned upside down. The electrodes and accessories, when not in use, are fixed in the lid and thus add to the portability of the instrument. The batteries have been made by Messrs. S. Maw, Son, & Thompson, Aldersgate Street, E.C.

MISCELLANY

Dynamite Pills.—Messrs. Landousky and Ballet have published a curious observation of spasmodic contraction with paralysis of the lower limbs, which had lasted for two years and a half in a hysterical girl of 26 years of age. On October 7 two pills were given to her, described as fulminating pills, which she was recommended to take with the greatest care, dividing each pill in half. On the following day the patient announced that she had tried to poison herself, and that she had taken all four pills at once, that they had produced a terrible effect upon her, but that her disease was suddenly and completely cured. The pills were composed of bread crumbs only.

Bathers' Cramp.—In the *Brit. Med. Jour.*, July 1883, p. 82, attention is drawn to the number of bathing fatalities due to cramp. The nature and causes of this dangerous affection are not generally understood, but experience has given some data to recognise certain conditions favourable to the production of cramp. These are: a peculiar individual susceptibility or idiosyncrasy, the shock of cold applied to the general surface of the body, prolonged muscular exertion, and forcible and sudden muscular exertion, especially in the direction of the extension of the extremities. The great folly of entering the water while the body is heated by violent muscular exercise is particularly insisted upon. In the *Lancet*, Sept. 1883, p. 468, it is shown that in many fatal cases, classed under Swimmers' Cramp, death is often due to failure of the heart, or to rupture of cerebral vessels.

A school of medicine for women was opened on the 2nd instant, in Kingston, Canada, when Dr. Lowell addressed the students. Three scholarships have been founded, and the prospects of the school as a separate institution are good. A guarantee fund of 7,000 dollars has been raised.

The Influence of Peroxide of Hydrogen on Animal Tissues. — Dr. Bernhard Solger, of Halle (*Centralbl. für die Med. Wiss.*, Marz 17), independently of Dr. Unna, has arrived at the same results with reference to peroxide of hydrogen as a bleaching and macerating agent in researches on animal structures. 1. *Bleaching Powers.*—Dr. Solger employs a 3 per cent. solution. Dark human hair becomes colourless after ten days' maceration. This property has been known to, and employed by, hairdressers for a long time. Dr. Solger has by the same agent in a few days rendered brown, the black star-shaped pigmentary bodies of the frog's skin, and the pigmentary epithelium of the retina in a six months' human fœtus. These structures were submitted to the action of the peroxide in their fresh state; its influence was also not slight upon tissues that had been preserved in alcohol or Müller's solution. The tegumentary pigment of a cephalopod (eledone, in alcohol) resisted its influence, as did also the carbonaceous matter of the human bronchial glands. The action of the peroxide on fat-cells blackened by osmium is interesting, as it shows these to be not solid bodies, but thick walled, strongly refractive, hollow globules, having round or slightly serrated vacuoles within them. It was remarkable that the simultaneous employment of osmic acid and peroxide of hydrogen on animal tissues rendered visible medullary nerve-fibres which the single use of either did not affect. Sections of spinal cord that had lain for two months in Müller's fluid were within half an hour changed to a bright green colour, a change effected almost instantaneously, which ordinarily takes place slowly only after long immersion in alcohol. 2. *As a Macerating Agent.*—Horny tissues appear to be the most readily acted upon. The spear-shaped laminæ of the horny exterior of the human hair will be seen to be softened and detached in about eight or ten days' maceration. The brown or sack coloured plates of chitine in like manner become bleached and softened. Thus the peroxide is specially useful in examining the structures of invertebrata. Dr. Solger appends to his article a note to the effect that, on looking up the literature of the subject, he finds that the same action of peroxide of hydrogen was mentioned in their treatise by Pouchet and Tourneux in 1878. They employed, Dr. Solger adds, a mixture of the peroxide and glycerine.

Bromide of Arsenic in Diabetes Mellitus.—Soon after the announcement by Dr. Clemens of the benefit to be derived from bromide of arsenic in diabetes, the remedy was employed in this disease by Professor Korányi, in Budapest. The medicine was administered to a man 22 years old, who, when entering the hospital, was so weak that he could with difficulty ascend the steps to the clinic at the time of his admission, Feb. 15, 1882. Through the administration of the bromide of arsenic, this patient was so greatly benefited that on May 9 he was discharged from the hospital, and was at once enrolled for military duty. During the time of treatment his weight increased from 48·5 kilogrammes to 56·6 kilogrammes, and the loss of sugar in the urine, which in the first few days varied in amount from 170 to 411 grammes in twenty-four hours, was entirely suspended. This surprising result continued after the patient was given a mixed amylaceous diet, and the arsenic was withheld. Before the arsenic was prescribed at all, the patient was for some days confined to a strict diet, by which means the amount of sugar was sensibly diminished from 298 grammes by mixed diet to 113·52 grammes in twenty-four hours. The diet consisted of breakfast of bitter Russian tea, two to three soft-cooked eggs, or bacon; dinner of soup, cooked beef, roast meats, with green vegetables. During the whole day one water-biscuit was allowed. The first cycle of treatment with bromide of arsenic and animal food lasted eleven days, in which the dose of the drug was increased from three to six drops. The result must be acknowledged a most brilliant one, for on the eleventh day (March 21) sugar could hardly be detected in the urine, and steadily diminished day by day. During the treatment the average amount of sugar excreted was 55·35 grammes in twenty-four hours, that is, half the amount which was previously lost during the time in which the patient was treated by means of an animal diet, or one-fifth the original quantity lost daily by the patient. The diet of animal food was now resumed without the medicine, when traces of sugar could be detected in the urine at times, while at other times none could be detected. On the sixth day the patient was given rice in addition to his previous diet, when sugar appeared to the amount of 1 per cent. in the urine, and the treatment by the arsenical bromide was at once resumed. From this time the medicine was continued in the dose of five drops daily for twenty-seven days, with a modified diet, containing, in addition to meat, 150 grammes rice and two biscuits daily. During this period sugar was almost always absent from the urine, never being found in a greater amount than 0·1 to 0·3 per cent. After this, for a period of some days, the diet was made to include a variety of amylaceous substances, and the medicine entirely withheld, and the only variation was that on two days sugar appeared to the extent of 24 and 29 grammes respectively, in the urine. During the remainder of the time the urine was absolutely free from sugar. The translator of the above, which is published in the *Boston Medical and Surgical Journal*, Vol. cix., No. 12, states that he has employed the same remedy as is here mentioned, a compound of bromine with arsenious acid, the nature of which is not yet satisfactorily determined, in the treatment of a case of diabetes mellitus of long standing, in which there has been a loss of 33 per cent. of the original weight, ravenous appetite, tormenting thirst, and an excretion of urine amounting to many quarts daily. The amount of sugar in the urine amounted to 35·71 grammes in the fluid ounce. The result of treatment by means of this new remedy is awaited with much interest.

Hunyadi János

"THE RICHEST NATURAL APERIENT WATER."
Baron Liebig in "Lancet."

"Certain and Painless, Soft and Mild."
Prof. Von GARTNER, STUTTGART.

"OF GREAT USE IN HABITUAL CONSTIPATION."
Medical Times & Gazette.

USES AND RECOMMENDATIONS.

Hunyadi János — As a Laxative and against Obstinate Constipation.
"Has remarkable success in all diseases for which aperient waters are used."
Professor BAMBERGER, *University of Vienna.*

Hunyadi János — Against Hæmorrhoids, and Portal and Hepatic Congestions.
"Prompt, certain, and without inconvenience."
Prof. VON BUHL, *Munich.*

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